

Consideration of Comments

Project Name:	2019-06 Cold Weather EOP-011-2, IRO-010-4, TOP-003-5
Comment Period Start Date:	1/27/2021
Comment Period End Date:	3/12/2021
Associated Ballots:	2019-06 Cold Weather EOP-011-2 IN 1 ST 2019-06 Cold Weather IRO-010-4 IN 1 ST 2019-06 Cold Weather TOP-003-5 IN 1 ST

There were 104 sets of responses, including comments from approximately 235 different people from approximately 150 companies representing the 10 Industry Segments as shown in the table on the following pages.

All comments submitted can be reviewed in their original format on the [project page](#).

If you feel that your comment has been overlooked, let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, contact Vice President of Engineering and Standards [Howard Gugel](#) (via email) or at (404) 446-9693.

Questions

1. The SDT placed the Generator Owner cold weather preparedness plan(s) requirements within EOP-011. Do you agree with this new requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.
2. The SDT placed the Reliability Coordinator data specification requirements within IRO-010. Do you agree with this modified requirement placement in the IRO-010 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.
3. The SDT placed the Transmission Operator data specification requirements within TOP-003. Do you agree with this modified requirement placement in the TOP-003 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.
4. The SDT placed the Balancing Authority data specification requirements within EOP-011. Do you agree with this modified requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.
5. EOP-011-2 (Requirement R7 Part 7.2): The SDT suggest maintenance and inspection be, at a minimum, an annual requirement. Does the requirement provide enough specificity for an industry wide standard?
6. The SDT modified the Implementation Plan to allow twelve (12) months following the effective date to become compliant with EOP-011, IRO-010, and TOP-003. If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Questions

7. Proposed TOP-003-5 Requirement R1 and IRO-010-4 Requirement R1 would require TOPs and Reliability Coordinator to maintain cold weather parameter. For consistency with the data specification requirements and to ensure the BA has the necessary information to perform its analysis during cold weather, do you believe that similar parameters should be required? Please provide your reasoning as to why it should be required or should not be required.

8. Please provide any additional comments for the SDT to consider, if desired.

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
BC Hydro and Power Authority	Adrian Andreoiu	1	WECC	BC Hydro	Hootan Jarollahi	BC Hydro and Power Authority	3	WECC
					Helen Hamilton Harding	BC Hydro and Power Authority	5	WECC
					Adrian Andreoiu	BC Hydro and Power Authority	1	WECC
CenterPoint Energy Houston Electric, LLC	Ben Burnett	1	Texas RE	CEHE Project 2019-06 Cold Weather	Daniela Hammons	CenterPoint Energy Houston Electric, LLC	1	Texas RE
					Ben Burnett	CenterPoint Energy Houston Electric, LLC	1	Texas RE
Santee Cooper	Chris Wagner	1		Santee Cooper	Rene' Free	Santee Cooper	1,3,5,6	SERC
					Jennifer Richards	Santee Cooper	1,3,5,6	SERC
					Paul Camilletti	Santee Cooper	1,3,5,6	SERC
					Rodger Blakely	Santee Cooper	1,3,5,6	SERC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					LaChelle Brooks	Santee Cooper	1,3,5,6	SERC
Tennessee Valley Authority	Dennis Chastain	1,3,5,6	SERC	Tennessee Valley Authority	DeWayne Scott	Tennessee Valley Authority	1	SERC
					Ian Grant	Tennessee Valley Authority	3	SERC
					Brandy Spraker	Tennessee Valley Authority	5	SERC
					Marjorie Parsons	Tennessee Valley Authority	6	SERC
Jennie Wike	Jennie Wike		WECC	Tacoma Power	Jennie Wike	Tacoma Public Utilities	1,3,4,5,6	WECC
					John Merrell	Tacoma Public Utilities (Tacoma, WA)	1	WECC
					Marc Donaldson	Tacoma Public Utilities (Tacoma, WA)	3	WECC
					Hien Ho	Tacoma Public Utilities (Tacoma, WA)	4	WECC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Terry Gifford	Tacoma Public Utilities (Tacoma, WA)	6	WECC
					Ozan Ferrin	Tacoma Public Utilities (Tacoma, WA)	5	WECC
ACES Power Marketing	Jodirah Green	1,3,4,5,6	MRO,NA - Not Applicable,RF,SERC,Texas RE,WECC	ACES Standard Collaborations	Bob Solomon	Hoosier Energy Rural Electric Cooperative, Inc.	1	SERC
					Kevin Lyons	Central Iowa Power Cooperative	1	MRO
					Bill Hutchison	Southern Illinois Power Cooperative	1	SERC
					Nick Fogleman	Prairie Power Incorporated	1,3	SERC
					Susan Sosbe	Wabash Valley Power Association	3	RF
					Scott Brame	North Carolina Electric	3,4,5	SERC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
						Membership Corporation		
					David Hartman	Arizona Electric Power Cooperative	1	WECC
Entergy	Julie Hall	6		Entergy	Oliver Burke	Entergy - Entergy Services, Inc.	1	SERC
					Jamie Prater	Entergy	5	SERC
DTE Energy - Detroit Edison Company	Karie Barczak	3		DTE Energy - DTE Electric	Adrian Raducea	DTE Energy - Detroit Edison Company	5	RF
					Daniel Herring	DTE Energy - DTE Electric	4	RF
					Karie Barczak	DTE Energy - DTE Electric	3	RF
ISO New England, Inc.	Kathleen Goodman	2	NA - Not Applicable, NPCC	Standards Review Committee (SRC)	Ben Li	IESO	2	NPCC
					Greg Campoli	NYISO	2	NPCC
					Matthew Goldberg	ISO-NE	2	NPCC
					Liz Axson	ERCOT	2	Texas RE
					Terry Bilke	MISO	2	MRO
					Mark Holman	PJM	2	RF

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Lincoln Electric System	Kayleigh Wilkerson	5		Lincoln Electric System	Kayleigh Wilkerson	Lincoln Electric System	5	MRO
					Eric Ruskamp	Lincoln Electric System	6	MRO
					Jason Fortik	Lincoln Electric System	3	MRO
					Danny Pudenz	Lincoln Electric System	1	MRO
MRO	Kendra Buesgens	1,2,3,4,5,6	MRO	MRO NSRF	Bobbi Welch	Midcontinent ISO, Inc.	2	MRO
					Christopher Bills	City of Independence Power & Light	3,5	MRO
					David Heins	Omaha Public Power District	3	MRO
					Douglas Webb	Evergy	1,3,5,6	MRO
					Fred Meyer	Algonquin Power Co.	1	MRO

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Jamie Monette	Allete - Minnesota Power, Inc.	1	MRO
					Jodi Jensen	Western Area Power Administration - Upper Great Plains East (WAPA)	1,6	MRO
					John Chang	Manitoba Hydro	1,3,6	MRO
					Larry Heckert	Alliant Energy Corporation Services, Inc.	4	MRO
					Marc Gomez	Southwestern Power Administration	1	MRO
					Matthew Harward	Southwest Power Pool, Inc.	2	MRO
					LaTroy Brumfield	American Transmission Company, LLC	1	MRO

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Bryan Sherrow	Kansas City Board Of Public Utilities	1	MRO
					Terry Harbour	MidAmerican Energy	1,3	MRO
					Jamison Cawley	Nebraska Public Power	1,3,5	MRO
					Seth Shoemaker	Muscatine Power & Water	NA - Not Applicable	MRO
					Michael Brytowski	Great River Energy	1,3,5,6	MRO
					Jeremy Voll	Basin Electric Power Cooperative	1	MRO
					Joe DePoorter	Madison Gas and Electric	4	MRO
Duke Energy	Kim Thomas	1,3,5,6	FRCC,RF,SERC,Texas RE	Duke Energy	Laura Lee	Duke Energy	1	SERC
					Dale Goodwine	Duke Energy	5	SERC
					Greg Cecil	Duke Energy	6	RF
Southern Indiana Gas	Leslie Hamby	3,5,6	RF	SIGE Project 2019-06	Erin Spence	Southern Indiana Gas	6	RF

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
and Electric Co.						and Electric Co.		
					Larry Rogers	Southern Indiana Gas and Electric Co.	5	RF
					Ryan Abshier	Southern Indiana Gas and Electric Co.	3	RF
FirstEnergy - FirstEnergy Corporation	Mark Garza	4		FE Voter	Julie Severino	FirstEnergy - FirstEnergy Corporation	1	RF
					Aaron Ghodooshim	FirstEnergy - FirstEnergy Corporation	3	RF
					Robert Loy	FirstEnergy - FirstEnergy Solutions	5	RF
					Ann Carey	FirstEnergy - FirstEnergy Solutions	6	RF
					Mark Garza	FirstEnergy-FirstEnergy	4	RF

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Public Utility District No. 1 of Chelan County	Meaghan Connell	5		PUD No. 1 of Chelan County	Ginette Lacasse	Public Utility District No. 1 of Chelan County	1	WECC
					Joyce Gundry	Public Utility District No. 1 of Chelan County	3	WECC
					Meaghan Connell	Public Utility District No. 1 of Chelan County	5	WECC
					Glen Pruitt	Public Utility District No. 1 of Chelan County	6	WECC
Northern California Power Agency	Michael Whitney	3		NCPA	Scott Tomashefsky	Northern California Power Agency	4	WECC
					Marty Hostler	Northern California Power Agency	5,6	WECC
					Marty Hostler	Northern California Power Agency	5,6	WECC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Cogentrix Energy Power Management, LLC	Mike Hirst	5	NPCC,RF,SERC	Cogentrix Energy Power Management	Mike Hirst	CEPM	5	NPCC
					Gerry Adamski	Cogentrix Energy Power Management, LLC	5	RF
					Kristy Gedman	CEPM	5	SERC
					Kieth Sebastain	RISEC	5	NPCC
					Justin Castagna	Rumford Power	5	NPCC
					Robert Kulbacki	Effingham County Power	5	SERC
					Phil dooley	Mid-GA Cogen	5	SERC
					Keith Charles	Mid-GA Cogen	5	SERC
					Tom Bartley	EP Mass	5	NPCC
					Alan Douglass	EP Mass	5	NPCC
					Ralph Jones	EP Rocksprings	5	RF
					Kevin Bieu	Tiverton Power	5	NPCC
Jake Manner	Bridgeport Energy	5	NPCC					

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Southern Company - Southern Company Services, Inc.	Pamela Hunter	1,3,5,6	SERC	Southern Company	Matt Carden	Southern Company - Southern Company Services, Inc.	1	SERC
					Joel Dembowski	Southern Company - Alabama Power Company	3	SERC
					Ron Carlsen	Southern Company - Southern Company Generation	6	SERC
					Jim Howell	Southern Company - Southern Company Services, Inc. - Gen	5	SERC
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	NPCC Regional Standards	Guy V. Zito	Northeast Power Coordinating Council	10	NPCC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
				Committee no UI	Randy MacDonald	New Brunswick Power	2	NPCC
					Glen Smith	Entergy Services	4	NPCC
					Alan Adamson	New York State Reliability Council	7	NPCC
					David Burke	Orange & Rockland Utilities	3	NPCC
					Helen Lainis	IESO	2	NPCC
					David Kiguel	Independent	7	NPCC
					Paul Malozewski	Hydro One Networks, Inc.	3	NPCC
					Nick Kowalczyk	Orange and Rockland	1	NPCC
					Joel Charlebois	AESI - Acumen Engineered Solutions International Inc.	5	NPCC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Mike Cooke	Ontario Power Generation, Inc.	4	NPCC
					Salvatore Spagnolo	New York Power Authority	1	NPCC
					Shivaz Chopra	New York Power Authority	5	NPCC
					Deidre Altobell	Con Ed - Consolidated Edison	4	NPCC
					Dermot Smyth	Con Ed - Consolidated Edison Co. of New York	1	NPCC
					Peter Yost	Con Ed - Consolidated Edison Co. of New York	3	NPCC
					Cristhian Godoy	Con Ed - Consolidated Edison Co. of New York	6	NPCC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Sean Bodkin	Dominion - Dominion Resources, Inc.	6	NPCC
					Nurul Abser	NB Power Corporation	1	NPCC
					Randy MacDonald	NB Power Corporation	2	NPCC
					Michael Ridolfino	Central Hudson Gas and Electric	1	NPCC
					Vijay Puran	NYSPS	6	NPCC
					ALAN ADAMSON	New York State Reliability Council	10	NPCC
					Sean Cavote	PSEG - Public Service Electric and Gas Co.	1	NPCC
					Brian Robinson	Utility Services	5	NPCC
					Quintin Lee	Eversource Energy	1	NPCC

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
					Jim Grant	NYISO	2	NPCC
					John Pearson	ISONE	2	NPCC
					John Hastings	National Grid USA	1	NPCC
					Michael Jones	National Grid USA	1	NPCC
					Nicolas Turcotte	Hydro-Quebec TransEnergie	1	NPCC
					Chantal Mazza	Hydro-Quebec	2	NPCC
OGE Energy - Oklahoma Gas and Electric Co.	Sing Tay	6	SPP RE	OKGE	Sing Tay	OGE Energy - Oklahoma	6	MRO
					Terri Pyle	OGE Energy - Oklahoma Gas and Electric Co.	1	MRO
					Donald Hargrove	OGE Energy - Oklahoma Gas and Electric Co.	3	MRO
					Patrick Wells	OGE Energy - Oklahoma Gas and Electric Co.	5	MRO

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Western Electricity Coordinating Council	Steven Rueckert	10		WECC Cold Weather	Steve Rueckert	WECC	10	WECC
					Saad Malik	WECC	10	WECC
					Vic Howell	WECC	10	WECC
					Steve Ashbaker	WECC	10	WECC
					Tim Reynolds	WECC	10	WECC

1. The SDT placed the Generator Owner cold weather preparedness plan(s) requirements within EOP-011. Do you agree with this new requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Kristina Marriott - First Solar, Inc. - 5

Answer No

Document Name

Comment

Although we are able to locate and understand our entities requirements, we believe the industry may benefit from having all cold weather requirements located in a singled EOP Standard. For entities with multiple types of registered functions, searching for cold weather requirements in multiple different standards may be tedious and confusing.

Likes 0

Dislikes 0

Response

Thank you for your comment and the SDT understands your concerns. Based on industry comments, the majority of industry did not agree with the development of a new standard. Therefore, the SDT determined the best fit for these modifications is within the three standards (EOP, IRO, and TOP).

John Allen - City Utilities of Springfield, Missouri - 1,3,4

Answer No

Document Name

Comment

While the proposed change in EOP-011-1 R2.2.9 is acceptable, some of the language in R7 is not. Overall, the requirement language does not state a clear measurable objective and thus does not meet the attributes of a results-based standard as described in Section 2.4 of the [Standards Process Manual](#). Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Additionally, the requirement to “develop and maintain” along with responsibilities to provide awareness training in R7.4 are administrative in nature adding associated costs without commensurate reliability benefit. By requiring the entity to “implement” the plan, it is implied that the plan is developed and maintained and personnel are aware of their roles and responsibilities. This can be confirmed via ERO CMEP activities (internal control evaluations). Therefore, the language changes below are provided for consideration by the 2019-06 SDT. The reliability objective was taken from page 86 of [The South Central United States Cold Weather Bulk Electronic System Event of January 17, 2018](#):

*R7. Each Generator Owner shall implement one or more cold weather preparedness plan(s) for its generating unit(s) **to maximize generator output and availability for BES reliability during these conditions**. The cold weather preparedness plan(s) shall include the following, at a minimum*

7.1. Generating unit(s) freeze protection measures based on unique factors such as geographical location and plant configuration;

7.2. Annual maintenance and inspection of generating unit(s) freeze protection measures; and

7.3. Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in cold weather; and

7.3.2. Generating unit(s):

7.3.2.1. minimum design temperature; or

7.3.2.2. minimum demonstrated historical performance during cold weather in the previous 5 years;

7.4. DELETED

Likes	1	Associated Electric Cooperative, Inc., 3, Bennett Todd
Dislikes	0	

Response

Thank you for your comment. The SDT made additional modifications to Requirement R7 within EOP-011-2. The SDT modified the training requirement to better align with the FERC recommendation and decided to retain awareness training based on the importance of “winter-specific and plant-specific awareness training” outlined in “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018” and has expanded the requirement to include Generator Operators.

Dylan Sontag - Silicon Ranch Corporation - 1 - SERC

Answer	No
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Document Name	
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Comment

Cold weather operations are heavily weighed into the design phase of the facility and every part of the plant is designed to operate at the lowest ASHRAE temperature expected for the site the facility is constructed at. This may make sense as an evaluation performed once at the beginning of the project to prove that facilities will operate as expected during cold weather, but no special procedures are required to be performed annually and this should not be an annual requirement.

Likes	0
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Dislikes	0
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Response

Thank you for your comment. The annual evaluation is only to the extent that specific events of the previous year would alter the cold weather preparedness plan. There is no expectation of a complete design review of the facility or its cold weather plan.

Laura Nelson - IDACORP - Idaho Power Company - 1

Answer	No
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Document Name	
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Comment

Idaho Power believes this new requirement is quite onerous and will require a large amount of work to complete. Idaho Power has a good handle on how cold weather impacts our facilities and how to respond without adding the additional requirement of a preparedness plan.

The proposed data specifications are extremely work intensive and, in some cases, may not be obtainable. For example, 7.3.2.1. is not something available for some facilities, and obtaining "5 years" of data for 7.3.2.2. is not something readily available for several plants. It could require new systems and additional years of data collection to meet these data requests.

Idaho Power has several questions for NERC to consider going forward:

- 1) Will entities be provided with a procedure detailing how to create this plan, or are entities expected to develop a procedure from scratch?
- 2) Will entities be provided a base template for a plan, or are entities expected to start from scratch?
- 3) How will NERC define the term "cold weather"? The term "cold weather" is too vague without appropriate specificity.

Likes 0

Dislikes 0

Response

The SDT commends your entity for understanding the impact of cold weather on generating facilities including the appropriate response. If this is the case, the conditions listed in R7 should readily be available and previously provided to the respective entities. The importance of minimum design temperature has been stressed in the findings and recommendations resulting from cold weather events of 2011, 2014 and 2018.

Response to Additional Questions:

Question 1 – No, but entities are encouraged to utilize the NERC Reliability Guideline, Generator Unit Winter Readiness – Current Industry Practices, which contains information how to develop an effective cold weather preparedness plan. In addition, the SDT recommends an entity reach out to its respective Regional Entities for assistance and guidance on developing a cold weather preparedness plan.

Question 2 – Entities can refer to the NERC Reliability Guideline, Generator Unit Winter Readiness – Current Industry Practices as a basis for developing a cold weather preparedness plan.

Question 3 – Although “cold weather” related to winter preparedness is generally considered to be ambient temperatures below 32 degrees F or temperatures below the freezing point based on the effects of wind chill, each geographic region or area will be permitted to establish their own interpretation of cold weather based on historical winter weather conditions.

Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1

Answer	No
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Document Name	
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Comment

For those generators that are located in cold climates and operate regularly in freezing weather, this standard will be a unnecessary administrative series of tasks. The Cold Weather Preparedness should be limited to those locations where cold weather operations is not frequent. Despite the recent problems in Texas, Generations in Northern climates continues to be reliable. Perhaps the standard needs to put the burden on Planning Coordinators to identify generators that are of high risk, and require Cold Weather preparedness from them, excluding others.

Likes 0	
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Dislikes 0	
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Response

The SDT understands and appreciates your concerns. As explained in previous responses to industry comments, the extensiveness of each entity’s cold weather preparation plan would be based on their specific geographic area and past cold weather experiences. Also, for those generators that regularly operate in freezing weather, it is assumed that although a formal cold weather preparation plan may not have been established, these facilities already implement the necessary practices to ensure winter readiness.

Thomas Foltz - AEP - 5

Answer	No
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Document Name	
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Comment

R7 as currently proposed includes training requirements. NERC has worked hard to eliminate duplicate requirements throughout the standards as this can potentially lead to multiple violations for the same single incident. With the exception of EOP-005 and EOP-006, PER-006 covers training requirements. We believe any new training requirements associated with Cold Weather should be included within PER-006 by revising R1.

In addition, the Rationale for R3 within the Guidelines and Technical Basis section provides insight into the reasoning behind the Operating Plan, and the RC’s review of an entity’s Operating Plan. The SDT may want to consider also adding the Generator Operator as well, as instruction from the Transmission entities would likely involve the Generator Operator.

We also believe there needs to be some clarity within the proposed revisions on what actions the receiving entity should, or perhaps should-not, take as a result of receiving this provided information.

AEP has chosen to vote negative on EOP-011, driven by our concerns stated in the first paragraph above related to training requirements.

Likes 1	Wike Jennie On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merre
Dislikes 0	

Response

The SDT thanks you for your comments and understands your concerns. Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. The Additionally, the SDT modified moved the training requirements by removing it from Requirement R7 and consolidating training awareness into a single requirement in (R8) within EOP-11.

Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6

Answer No

Document Name

Comment

EOP-011-1 is applicable to System Operators (TOP, BA, RC). Adding GO applicability to EOP-011-2 with proposed Requirement 7 does not appear to be a good fit. NIPSCO suggests that creating a new standard may be more appropriate here, similar to what was done with EOP-010-1 GMD Operations. (The SDT discussion above regarding a new standard is noted)

Likes 0

Dislikes 0

Response

Thank you for your comment and the SDT understands your concerns. Based on industry comments, majority of industry did not agree with the development of a new standard. Therefore, the SDT determined the best fit for these modifications is within the three standards (EOP, IRO, and TOP).

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power

Answer

No

Document Name

Comment

Overall, Tacoma Power supports the efforts of the SDT to address the recommendations identified in the 2019 FERC and NERC Staff Report, and concurs that additional measures are necessary to prevent the repeat cold weather events experienced over the last decade. However, Tacoma Power believes there's a more effective and appropriate strategy to fully address the issues underlying these events.

First, Tacoma Power recommends maintaining the current focus of EOP-011 on Real-Time Operations performed by NERC-Certified System Operators in response to an emergency. The recommendations prescribed in the 2019 FERC and NERC Staff Report are related to long-term planning or normal operation Time Horizons. Both the FAC Standards (Facilities Design, Connections, and Maintenance) and the MOD Standards (Modeling, Data, and Analysis) are better suited to capture Requirements necessary to ensure facilities are adequately designed, maintained, and to perform analysis to confirm generation capacity/capability. Tacoma Power requests clarification from the

SDT as to why maintenance or design changes (e.g. freeze protection measures) are not contained in the FAC or MOD Standards, and how these activities are tied to Real-Time operations performed during an emergency.

As an alternative to adding maintenance and design requirements to EOP Standards, Tacoma Power recommends the SDT approach extreme cold weather events similar to how the industry approached GMD events in Project 2013-03. Instead of prescriptive requirements, the SDT should develop requirements to 1) assess vulnerabilities, 2) communicate results of assessments, and 3) evaluate/identify CAPs, which could include maintenance, design changes, and operating plans. This approach would ensure that vulnerabilities are identified, and only facilities with cold weather vulnerabilities need mitigative actions. These Requirements could be added to a modified MOD-025, which already contains Requirements for GOs to perform testing and studies, or a standalone FAC or MOD Standard. These requirements added to MOD-025 might look like the following:

“RX. Generator Owners shall complete a benchmark Cold Weather Vulnerability Assessment at least once every 60 calendar months. [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

RY. Generator Owners shall communicate to their respective Transmission Planner any vulnerabilities identified in RX that could negatively impact applicable generation facility capacity or availability. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]

RZ. Generator Owners that conclude through the Cold Weather Vulnerability Assessment conducted in Requirement RX that their generation facility has vulnerabilities that could impact generator output and availability during these conditions, shall develop a Corrective Action Plan (CAP) addressing how the vulnerabilities are mitigated. The CAP shall: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]

RZ.1 Be developed within one year of completion of the Cold Weather Vulnerability Assessment.

RZ.2 Include necessary maintenance activities, cold weather preparation plans, and freeze protection methods.”

Project 2013-03 also created EOP-010, which provides for the Real-Time response and actions performed by the NERC-Certified System Operators in response to GMD events. Tacoma Power recommends the SDT evaluate EOP-010 and consider utilizing this structure and Requirement language for any new cold weather related EOP Requirements. For example, a new EOP-011 requirement could be worded as follows:

“...RX. Each Transmission Operator shall develop, maintain, and implement a cold weather Operating Procedure or Operating Process to mitigate the effects of extreme cold weather events on the reliable operation of its respective system. At a minimum, the Operating Procedure or Operating Process shall include: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning, Operations Planning, Same-day Operations, Real-Time Operations]...”

Lastly, Tacoma Power does not support adding training requirements to EOP Standards. NERC has worked hard to eliminate duplicate requirements throughout the Standards as this can potentially lead to multiple violations for the same single incident. With the exception of EOP-005 and EOP-006, PER-006 covers training requirements for plant personnel. Tacoma Power recommends moving the EOP-011 Part R7.4 training requirements to PER-006. The purpose of PER-006 is “[t]o ensure that personnel are trained on specific topics essential to reliability to perform or support Real-time operations of the Bulk Electric System.” Training of personnel for cold weather preparedness is essential to reliability and supports real-time operations of the BES. Additionally, PER-006 is applicable to GO personnel and is not related to Operator certifications contained in PER-005 (PER-005 personnel are explicitly excluded in the PER-006 applicability). Therefore, PER-006 is a more appropriate location for this new training requirement than EOP-011, which is focused on NERC-certified System Operator actions during or following an emergency.

In order to incorporate this new GO training requirement to PER-006, Tacoma Power recommends adding a second Requirement and modifying the applicability section, similar to the following:

New PER-006 Requirement:

“R2. Each Generator Operator shall provide training to personnel identified in Applicability section 4.1.1.2 on the roles and responsibilities of site personnel contained in the applicable cold weather preparedness plan. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]

M2. Each Generator Operator shall have available for inspection, evidence that the applicable personnel completed training. This evidence may be documents such as training records showing successful completion of training that includes training materials, the name of the person, and date of training.”

New PER-006 Applicability:

“4.1.1.2 Plant personnel who are responsible for performing actions contained in the applicable entities cold weather preparedness plan. (Applicable only to R2)”

Likes 2	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott; Snohomish County PUD No. 1, 3, Chaney Holly
Dislikes 0	
Response	
<p>Thank you for your comment. The SDT does not believe maintenance or design changes related to items such as freeze protection measures are appropriate for the FAC standards- such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. The areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.</p> <p>Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. The Additionally, the SDT modified moved the training requirements by removing it from Requirement R7 and consolidating training awareness into a single requirement in (R8) within EOP-11.</p>	
Marty Hostler - Northern California Power Agency - 5	
Answer	No
Document Name	
Comment	
<p>NO.</p> <p>NCPA supports TAPS comments.</p>	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to TAPS.	

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	No
Document Name	
Comment	
BPA supports Reclamation's comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to Reclamation.	
Erick Barrios - New York Power Authority - 6	
Answer	No
Document Name	
Comment	
<ol style="list-style-type: none"> 1. Our facilities are located in Northeast Region; they are prepared for extreme weather. This would just cause an Administrative redundancy of cold weather plans that already exist and have historically been in place from their initial design. <ul style="list-style-type: none"> o Instead of blanket requirements to address cold weather, possibly develop requirements to 1) assess vulnerabilities based on generator location, 2) communicate results of assessments, and 3) evaluate/identify CAPs, which could include maintenance, design changes, and operating plans. This approach would ensure that all vulnerabilities are captured, and only facilities with cold weather risks need to take mitigative actions. 2. Training requirements belong in the PER Standards and not EOP Standards. Recommend moving R7.4 to PER-006-1. 3. EOP-011 is written for Emergency Operations (recovery and mitigation) and is not written from the perspective of preparing generation facilities for emergencies. 	

- 4. EOP-011 requirements deal with real-time operations. Requirements that deal with design or maintenance are not real-time measurements.
- 5. Proposed EOP-011 R7 changes may not address the root cause behind the recent cold weather failures. The cause of these failures is that the generating units were not designed for low frequency high impact weather events.

Likes 1	Wike Jennie On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merre
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Dislikes 0	
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Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s).

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Additionally, the SDT moved the training requirements from Requirement R7 into a single requirement in R8 within EOP-11.

Glen Farmer - Avista - Avista Corporation - 5

Answer	No
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Document Name	
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Comment

This requirements implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have a cold weather preparedness plan. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems but it is not officially filed. We currently do not track training on the roles and responsibilities of site personnel.

Likes 0	
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Dislikes	0
Response	
The SDT has lengthened the implementation time to 18 months based on industry comments.	
Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy	
Answer	No
Document Name	
Comment	
<p>Duke Energy agrees with the placement of cold weather preparedness plan requirements within EOP-011. However, Duke Energy suggests the following EOP-011 clarifications/modifications:</p> <p>(1) Delineate the fact that Generator Owners wouldn't normally communicate with the Balancing Authority or Reliability Coordinator relative to cold weather preparedness plans;</p> <p>(2) Although EOP-011-1 currently contains proposed Requirements R1.2.6.2 and R2.2.9.2 ("any other extreme weather conditions") language, suggest deleting proposed Requirements R1.2.6.2 and R2.2.9.2 and allowing proposed R1.2.6.1 and R2.2.9.1 to serve as the exclusive extreme weather language;</p> <p>(3) Add a provision for the Transmission Operator/Balancing Authority to review the Generator Operator Winter Preparedness Plan;</p> <p>(4) Remove R7.3.2 and subsections. These additional administrative requirements do not improve reliability, and nowhere does it describe how this information will be utilized;</p> <p>(5) The NERC functional entity for "7.4. Awareness training on the roles and responsibilities of site personnel contained in the cold weather preparedness plan" should be changed to reflect a GOP responsibility instead of the GO.</p>	
Likes	0
Dislikes	0
Response	

Thank you for your comments. The SDT has taken your comments into consideration and modified substantial portions of the language.

Richard Jackson - U.S. Bureau of Reclamation - 1

Answer No

Document Name

Comment

Reclamation does not agree with the changes to EOP-011 Section 4, Applicability. The purpose of EOP-011 is Emergency Preparedness. Cold weather is seasonal and expected, not an emergency. Hydroelectric generators already have local cold weather plans (e.g., seasonal plants, water restrictions due to temperature, etc.). Reclamation recommends Section 4.2.1 be revised to clarify that the standard does not apply to hydroelectric generators or to certain geographic locations.

Recent events in ERCOT were associated with extreme weather across much of the US; however, only one geographic area experienced a disruption in reliability. The same area was associated with an event 10 years ago (September 2011 Southwest Blackout Event). The recurrence in the same area 10 years later supports the position that FERC is seeking to regulate the entire US on an issue that is specific to geography and type of generation. For the other areas of the country and other types of generators that routinely prepare for and experience cold weather, new requirements to document plans and provide training entail new administrative and financial burdens with low potential for increases to reliability.

Reclamation identifies that the placement of the new requirement in EOP-011 will make EOP-011 newly applicable to many Generator Owners across the nation. No other emergency preparedness requirements are attached to Generator Owners in this standard. The addition of a new standard adds a burden that may not be necessary in light of other standards that already apply to Generator Owners which could be leveraged to accomplish the goal. Reclamation recommends the SDT consider other standards for the Generator Owner cold weather requirements, such as PER standards for the training requirements and PRC standards for the maintenance practices and policies.

Likes 1 Wike Jennie On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merre

Dislikes 0

Response

Thank you for your comments. Although the SDT understands that cold weather is normally expected, if the proper cold weather preparations are not implemented and maintained, the cold weather can result in an emergency such as those experienced in 2011, 2014, 2018 and the recent issues in Texas. Since some generating facilities have cold weather preparations already in place, those facilities only need to ensure that their existing plans meet the conditions of the revised standard.

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Additionally, the SDT moved the training requirements from Requirement R7 into a single requirement in R8 within EOP-11.

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	No
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Document Name	
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Comment

See TAPS comments.

Likes	0
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Dislikes	0
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Response

Please see the SDT's response to TAPS.

Michael Brytowski - Great River Energy - 3

Answer	No
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Document Name	
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Comment

GRE supports the comments of the NSRF

Likes	0
Dislikes	0
Response	
Please see the SDT's response to NSRF.	
Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	No
Document Name	Question 1.PNG
Comment	
<p>The MRO NSRF understand the intent of this Project and supports the updating of the three applicable Standards. We are also aware of a reduced timeline to get to a Final Ballot. Our Standard Development Process is so designed for multiple revision of Standards during a Project's life cycle. The MRO NSRF's current set of comments are to assist the Drafting Team in ensuring that an effective and efficient set of updated continent-wide Standards are Results-Based and support the Reliable Operation and resiliency of our BPS during cold weather.</p> <p>All additional Requirements need to state a clear measurable objective in order to meet the attributes of a results-based standard as described in Section 2.4 of the Standards Process Manual. The following recommendations should assist the SDT in fulfilling the writing of a results-based standard.</p> <p>The MRO NSRF is pointing out that the Purpose Statement states, "... that Operating Plans are coordinated within a RC Area", which includes the proposed GO plan(s). The currently enforceable EOP-011-1 the TOP (in R1) and the BA (in R2) requires the RC to review and approve those Operating Plans. The proposed plan(s) per R7 (for the GO) does not state that any GO Cold Weather plan is required to be reviewed and approved by the RC. The Purpose Statement needs to be updated to reflect the overall object of ALL the contained Requirements. Recommend that the Purpose Statement simply read as, "To ensure each TOP, BA and GO has developed plan(s) to mitigate operating Emergencies to maintain the adequately level of reliability of the BES", or words of that effect. This simplified Purpose Statement then allows each Requirement to specifically address what is needed to be accomplished to support the adequate level of reliability that is required for BES operations.</p> <p>R7 does not state a clear measurable objective. Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Additionally, the requirement to "develop and maintain" along with responsibilities to provide</p>	

awareness training in R7.4 are administrative in nature adding associated costs without commensurate reliability benefit. By requiring the entity to “implement” the plan, it is implied that its developed and maintained and personnel are aware of their roles and responsibilities. This can be confirmed via ERO CMEP activities (internal control evaluations). Therefore, the language changes below are provided for consideration by the 2019-06 SDT. The reliability objective was taken from page 86 of [The South Central United States Cold Weather Bulk Electronic System Event of January 17, 2018](#):

R7, The basis of R7 is to have a “preparedness” plan, “preparedness” is defined as “*the quality or state of being prepared*”. This is interpreted as the GO is to have a plan to assist in “starting” only, hence a “preparedness plan”. If this is not the intention, the SDT should clearly state what the intention is.

Part 7.1, Delete “unique factors”. Which is an ambiguous word, recommend using “specific factors”. This implies a clearer objective for each BES generator’s specific configuration.

Part 7.3.1, requires obtaining “operating limitations” and if those limitations are unknown, then 7.3.2 gives the GO other avenues to gather generator’s cold weather data. At the end of 7.3.1 there is an “AND” this should be changed to an “OR”. A GO may have data specified in 7.3.1 and if don’t then they can use 7.3.2 to obtain the generator’s cold weather data via different methods.

Part 7.3, Recommend that within 7.3 (or its replacement), there is an additional part that reads; “Based on engineer analysis to determine minimum cold weather performance”. This wording is currently used in PRC-027-1 supplement material and is a catch all when the GO cannot obtain manufacture cold weather design limitations or temperature(s).

Part 7.3.2.2, Requires a previous (rolling) 5 years of data. Every year, the GO will need to update their data to cover the previous 5 years if part 7.3.2.2 is used to gather cold weather data. Recommend that “in the previous 5 years” be deleted. This will remove the “rolling” data requirement. The NSRF recommends that a recommended amount of time for past performance be at least five years of cold weather data and this would be published in a Guideline and Technical document.

Part 7.4, Awareness training on the roles and responsibilities of site personnel contained in the cold weather preparedness plan. The requirement of awareness training is unclear and not sure how it supports reliability. Since R7 only requires freeze protection measures and annual maintenance and inspection of those freeze protection measures, plus minimum design elements, not sure how awareness training is going to enforce reliability. Being “aware” of something cannot be measured such as training on a task can be measured. So, I can be “aware” that when it is cold outside my generator may not start. Plus, the “awareness” is for the roles and responsibilities of site personnel. I’m sure plant personnel are aware what the plant electrician does, what the control room operator does, etc.

Recommend 7.4 be deleted since it is an administrative element of R7. The use of an ambiguous word like “awareness” will be viewed like “familiar” as in soon to be retired PRC-001-1.1(ii). You cannot measure awareness. With any identification of freeze protection measures within the preparedness plan, they become part of the BES generator. Someone within the applicable entity will be performing an annual inspection (most likely via a checklist) and thus, the freeze protections will perform as designed. Plus, awareness of the freeze protection measures to the GO is fruitless, since they installed the freeze protection measures.

Based on the previous concerns, the NSRF suggests the following changes to R7: (File attached)

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT has taken your comments into consideration and incorporated large portions of them in the revised standards. Please see the updated modifications.

The SDT decided to retain awareness training based on the importance of “winter-specific and plant-specific awareness training” outlined in “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018” and has modified the training requirement to better align with the FERC/NERF report.

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority

Answer

No

Document Name

Comment

The FERC recommendation on training was limited to operators. However, requirement 7.4 in EOP-011 has no such limitation. Please limit the training scope to the FERC recommendation.

“Any other extreme weather conditions” added to sections 1.2.6.2 and 2.2.9.2 in EOP-011 opens up the standard to require addressing any weather condition, e.g. tornados, hurricanes, dust storms, floods, etc. This is not possible to forecast so how is an entity to do this? The concern being addressed is Cold Weather. Please limit the scope to this concern.

In EOP-011, if you have 7.3.1, why do you need to also have 7.3.2? Need to change the “and” in 7.3.1 to an “or”.	
Likes 1	Tennessee Valley Authority, 5, Thomas M Lee
Dislikes 0	
Response	
<p>Thank you for your comments. The SDT modified the training requirement to better align with the FERC recommendation outlined in “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018.”</p> <p>“Extreme weather conditions” is legacy language applicable to TOP and BA Operating Plans and was not added by this SDT. It should not be impacted by the current modifications.</p>	
Ballard Mutters - Orlando Utilities Commission - 3	
Answer	No
Document Name	
Comment	
<p>For Florida entities it will be challenging to develop cold weather plans with the “cold” weather we experience. See #4 below.</p> <p>Training requirements belong in the PER Standards and not EOP Standards. Recommend moving R7.4 to PER-006-1. EOP-011 is written for Emergency Operations not for preparing generation facilities for emergencies.</p>	
Likes 1	Wike Jennie On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merre
Dislikes 0	
Response	
<p>Thank you for your comments. As explained in previous responses to industry comments, the extensiveness of each entity’s cold weather preparation plan would be based on their specific geographic area, configuration and past cold weather experiences.</p>	

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Additionally, the SDT moved the training requirements from Requirement R7 into awareness to a single requirement R8 within EOP-11.

Scott McGough - Georgia System Operations Corporation - 3

Answer No

Document Name [2019-06_Cold_Weather_Comments_FINAL_GSOC_SBF03-11-21.docx](#)

Comment

{C}o {C}Although requirements R1 and R2 require TOPs and BAs to submit their plans for RC approval, the proposed requirement R7 does not have a corresponding requirement for GOs to submit their plans to the BA or TOP for approval. Such coordination at the BA and TOP area level is critical to ensuring that GO plans are properly evaluated for each of the areas within which its plants operate and well-coordinated with all entities responsible for the overall reliability of the grid. While RCs have ultimate authority and oversight, BAs and TOPs also have obligations to maintain reliability within their areas. The coordination of GO plans with BAs and TOPs as well as RCs during extreme weather events will allow such GO plans to be considered during the operational planning of all responsible entities, ensuring more cohesive, coordinated operational planning between and amongst all responsible entities.

{C}o To ensure cohesiveness, the training requirements (requirement R7.4) should be added to PER standards versus being scattered within other standard families.

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see SDT modifications to the TOP and EOP standards.

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Additionally, the SDT moved the training requirements from Requirement R7 into a single requirement in R8 within EOP-11.

Kayleigh Wilkerson - Lincoln Electric System - 5, Group Name Lincoln Electric System

Answer No

Document Name	
Comment	
Although supportive of the intent of the Cold Weather Project, LES believes additional clarity is needed within EOP-011 R7 for Generator Owners. As such, LES supports the comments provided by the MRO NSRF.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to MRO NSRF.	
Thomas Breene - WEC Energy Group, Inc. - 3	
Answer	No
Document Name	
Comment	
Cold weather preparedness plans and generating unit cold weather data does not belong in an EOP Standard. Nothing in the proposed Standard is related to operational actions during an Emergency. Currently EOP Standards are applicable to the RC, BA, TOP, and GOPs, introducing the GO changes the nature of the EOP family of Standards. Preparedness plans are more in the nature of preventive maintenance similar the treatment of batteries in the PRC Standards. We recommend including these requirements in the FAC or MOD Standards	
Regarding part 7.3.2.2 , if the GO does not have design data, a previous (rolling) 5 years of data is required. Every year, the GO will need to update their data to cover the previous 5 years if part 7.3.2.2 is used to gather cold weather data. Recommend that "in the previous 5 years" be deleted. This will remove the "rolling" data requirement. Recommended amount of time for past performance be at least five years of cold weather data and this would be published in a Guideline and Technical document.	
Likes 1	WEC Energy Group, Inc., 5, OBrien Janet
Dislikes 0	

Response

Thank you for your comment. The SDT does not believe maintenance or design changes related to items such as freeze protection measures are appropriate for the FAC standards- such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. As an example, the areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.

The SDT agrees with the removal of “in the previous 5 years” and has removed this language from part 7.3.2.2.

Dennis Sismaet - Northern California Power Agency - 6

Answer	No
Document Name	
Comment	
See TAPS comments.	
Likes 0	
Dislikes 0	

Response

Please see the SDT’s response to TAPS.

Brian Evans-Mongeon - Utility Services, Inc. - 4

Answer	No
Document Name	
Comment	
Utility Services supports the comments posted by the TAPS group.	
Likes 0	

Dislikes	0
Response	
Please see the SDT's response to TAPS.	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
<p>This requirement implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have a cold weather preparedness plan. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems but it is not officially filed. We currently do not track training on the roles and responsibilities of site personnel.</p>	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT has increased the implementation time to 18 months.	
Matthew Beilfuss - WEC Energy Group, Inc. - 4	
Answer	No
Document Name	
Comment	
<p>Cold weather preparedness plans and generating unit cold weather data does not belong in an EOP Standard. Nothing in the proposed Standard is related to operational actions during an Emergency. Currently EOP Standards are applicable to the RC, BA, TOP, and GOPs, introducing the GO changes the nature of the EOP family of Standards. Preparedness plans are more in the nature of preventive</p>	

maintenance similar the treatment of batteries in the PRC Standards. We recommend including these requirements in the FAC or MOD Standards.

Part 7.3.2.2, If the GO does not have design data it requires, a previous (rolling) 5 years of data. Every year, the GO will need to update their data to cover the previous 5 years if part 7.3.2.2 is used to gather cold weather data. Recommend that “in the previous 5 years” be deleted. This will remove the “rolling” data requirement. The NSRF recommends that a recommended amount of time for past performance be at least five years of cold weather data and this would be published in a Guideline and Technical document.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT does not believe maintenance or design changes related to cold weather preparation are appropriate for the FAC standards such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. As an example, the areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.

The SDT agrees with the removal of “in the previous 5 years” and has removed this language from part 7.3.2.2.

Larry Heckert - Alliant Energy Corporation Services, Inc. - 4

Answer

No

Document Name

Comment

Alliant Energy supports the comments submitted by the MRO NSRF.

Likes 0

Dislikes 0

Response

Please see the SDT’s response to MRO NSRF.

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	No
Document Name	
Comment	
<p>Southern Indiana Gas & Electric Company (SIGE) believes Winter Preparations should be standard operating procedure, which would aid in avoiding Emergency Operations. The cold weather preparedness plan(s) requirement should not be in any of the EOP standards. EOP standards should remain for emergency events such as blackouts, loss of control center, GMD events, and reporting.</p> <p>The FAC Standards focus on facility design, connections, and maintenance and therefore more applicable for the inclusion of ratings and parameters in which facilities should be operated during hot and cold weather conditions.</p> <p>It is our suggestion to develop a new FAC Standard which covers Generation and TO/TOP Substation Winterization practices and requirements. The new Standard would focus on the development and implementation of preventative standard operating procedures intended to mitigate cold weather emergency-level situations. The current EOP-011 would continue to focus on TOP/BA procedures to mitigate emergency situations, if they arise, including severe weather conditions.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SDT does not believe maintenance or design changes related to cold weather preparation are appropriate for the FAC standards such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. As an example, the areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.</p>	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	No
Document Name	
Comment	

CenterPoint Energy Houston Electric, LLC (CEHE) believes Winter Preparations should be standard operating procedure, which would aid in avoiding Emergency Operations. The cold weather preparedness plan(s) requirement should not be in any of the EOP standards. EOP standards should remain for emergency events such as blackouts, loss of control center, GMD events, and reporting.

The FAC Standards focus on facility design, connections, and maintenance and therefore more applicable for the inclusion of ratings and parameters in which facilities should be operated during hot and cold weather conditions.

It is our suggestion to develop a new FAC Standard which covers Generation and TO/TOP Substation Winterization practices and requirements. The new Standard would focus on the development and implementation of preventative standard operating procedures intended to mitigate cold weather emergency-level situations. The current EOP-011 would continue to focus on TOP/BA procedures to mitigate emergency situations, if they arise, including severe weather conditions.

Likes	0
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Dislikes	0
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Response

The SDT does not believe maintenance or design changes related to cold weather preparation are appropriate for the FAC standards such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. As an example, the areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.

Wayne Guttormson - SaskPower - 1

Answer	No
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Document Name	
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Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.

Likes	0
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Dislikes	0
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Response	
Please see the SDT's response to MRO NSRF.	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	No
Document Name	
Comment	
<p>Santee Cooper supports the efforts of the SDT to address the recommendations identified in the 2019 FERC and NERC Staff Report, and agrees that additional measures are necessary to prevent the repeat cold weather events. Santee Cooper requests further clarification around several of the additional requirements as currently drafted.</p> <p>Santee Cooper recommends that the requirements in EOP-011 remain requirements performed by NERC Certified System Operators in response to an emergency. The new Requirement 7 is related to long-term planning or normal operations. The FAC standards and the MOD standards are better suited to capture Requirements necessary to ensure facilities are adequately designed, maintained, and to perform analysis. Alternatively, a new EOP standard could be created that is solely associated to the GO for these requirements.</p> <p>Santee Cooper requests further clarification on 7.3: For example, if the design temperature is not available and a historical performance has to be utilized does that five years start when the standard becomes effective? There would be a similar concern if a GO doesn't have the design temperature or has not been tracking historical performance versus temperature. This requirement needs to be a phased-in to allow GOs to begin gathering the historical performance of units.</p> <p>Santee Cooper would also like clarification on what data should be collected and included in the historical performance.</p> <p>For R7.4, the PER-006 standard that becomes effective on April 1, 2021 should be revised to include training requirements associated with a GO.</p> <p>Santee Cooper also requests clarification around the awareness training. The implementation plan requires "awareness training on the roles and responsibilities of personnel under Requirement R7 Part 7.4 by the effective date of the Reliability Standard". Is this a one time training that has to be completed prior to the effective date of the standard or is there an expectation that training be provided on a</p>	

routine or periodic basis? It would be helpful if there were some further clarification on what all should be included in the awareness training.

Likes 0

Dislikes 0

Response

The SDT does not believe maintenance or design changes related to cold weather preparation are appropriate for the FAC standards such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. As an example, the areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards. Based on industry comments, majority of industry did not agree with the development of a new standard. Therefore, the SDT determined the best fit for these modifications is within the three standards (EOP, IRO, and TOP).

The SDT removed the 5 year language from the standard. Please see updated modifications.

Regarding data collection in order to demonstrate historical performance, the SDT advises that your facility contact your engineering/performance group for guidance.

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. The Additionally, the SDT modified moved the training requirements by removing it from Requirement R7 and consolidating training awareness into a single requirement in (R8) within EOP-11.

Regarding the awareness training, it would be up to the entity on how often training would be complete as outlined in the entities cold weather preparedness plan(s).

David Hathaway - WEC Energy Group, Inc. - 6

Answer

No

Document Name

Comment	
See Tom Breene's comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to Tom Breene.	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	
Comment	
<p>NV Energy would like to commend the Cold Weather SDT on the work done for this project, as NV Energy does believe this is a necessary industry requirement, especially given the recent Freeze Event that hit the midwest and Texas.</p> <p>NV Energy believe the regional guidelines provided by WECC (and potentially other Regional Entities), WECC Extreme Cold Weather Preparation Guideline, provide more sufficient requirements for for generation assets to ensure reliability of Bulk Electric Systems (BES). NV Energy would recommend the SDT review Regional Entity guidelines, and incorporate language to strengthen the compliance requirements.</p> <p>NV Energy also cannot agree to R7.3.2.2 as currently written, as additional clarity on existing language and concerns with the creation of a rolling 5-year requirement being additional burdensome from an evidentiary standpoint.</p> <p>NV Energy is unclear on what is expected to show "demonstrated historical performance". An assumption can be made that an Entity would need to show "successful" historical performance, but again, what does that mean: "The unit did not take an outage due to cold weather?", "It ran as expected?", "We did take an outage due to cold weather events, and that is part of the historical performance record, too".</p>	

Part 7.3.2.2 as written, creates a rolling timeline for evidence, as it request the previous (rolling) 5 years of data. Thus, every year, the GO will need to update their data to cover the previous 5 years if part 7.3.2.2 is used to gather cold weather data. NV Energy believes that the majority of the data produced for this requirement would ultimately be unnecessary, as the foundation of this requirement is for extreme cold weather events. NV Energy would recommends that “in the previous 5 years” be deleted. This will remove the “rolling” data requirement. And another option would be to request the a finite number of coldest weather days during a finite timeline to review generating unit performance against.

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) The intentions of the cold weather preparedness standard is to supplement the established policies, practices, guidelines and procedures of other organizations such as Regional Entities, ISOs, RTOs, etc. (2) The SDT removed five years from the EOP-011 standard. Please see updated modifications. (3) Demonstrating historical performance would indicate what capacity and how long the unit was able to operate during cold weather conditions.

George Brown - Acciona Energy North America - 5

Answer No

Document Name

Comment

General:
 Acciona Energy USA Global, LLC (Acciona) understands the purpose and industry need of Project 2019-06 Cold Weather. The comments provided by Acciona are to ensure the uniqueness of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition are accounted for by the Standards Drafting Team. Giving appropriate consideration for this emerging generation segment will ensure that any new requirements related to cold weather preparedness are performance and capability based, unambiguous and all applicable entities will be able to reasonably implement them, ultimately bolstering the reliability of the BPS during cold weather events.

§4.2. Facilities & Requirement R7. Terminology

Proposed §4.2 is unnecessary and should be removed. According to the NERC Glossary of Terms (GoT): Generator Owner is defined as an Entity that owns and maintains generating Facility(ies). The GoT defines Facility as a set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.). As such, in the proposed Requirement R7. all occurrences of ‘generating unit(s)’ should be replaced with ‘generating Facility(ies)’, which is commonly known term in the industry and is officially defined in the NERC GoT. Additionally, using the term ‘generating Facility(ies)’ in Requirement R7. would remove any ambiguity in regards to what equipment the requirement is applicable to, as ‘generating Facility(ies)’ encompasses all BES Elements required to import/export energy to the Transmission system. Notwithstanding using the term ‘generating Facility(ies)’ would be consistent with terminology in other NERC Standards, such as NERC Reliability Standard FAC-008-3 – Facility Ratings, that may be referenced in association with Requirement R7.

Requirement R7.

Acciona has concerns about the term ‘maintain’. As currently written the term refers to maintaining the cold weather preparedness plan (CWPP). As it relates to CWPP what is the periodicity for maintenance and what should the maintenance include? These are items that need to be defined to ensure consistent implementation and that this is a performance-based requirement.

Requirement R7.1.

Acciona is unclear what Requirement R7.1. is requiring. Acciona believes that Standards Drafting Team (SDT) is requesting Generator Owners (GO) to identify the generation Facility freeze protection measures that if not functioning would impede on the generation Facility(ies) ability to operate to either its minimum design operating temperature or minimum operational temperature based on demonstrated historical performance during cold weather. If this is in fact the case then the GO must first determine the minimum ambient temperature in which the facility can operate at. As currently written this is not a capability-based requirement.

Unique is defined as being the only one of its kind; unlike anything else. Acciona suggests removing the term ‘unique’ as there are probably more ‘common’ factors than ‘unique’ factors as it relates to freeze protection. Acciona believes the term ‘plant configuration’ as it relates to freeze protection is too ambiguous. For the purposes of the cold weather preparedness plan (CWPP) only freeze protections that impede on the generation Facility(ies) ability to operate to its minimum design operating temperature or minimum operational temperature demonstrated by historical performance during cold weather should be in scope. This would ensure that this is a capability-based requirement.

Requirement R7.2.

‘Annual’ is not a defined term, consider using bright line criteria. This would ensure that this is a performance-based requirement.

As stated by the Project 2014-01 Standards Applicability for Dispersed Generation Resources Standards Drafting Team’s white paper: “In some cases, the aggregated capability of the individual generating units may contribute to the reliability of the BPS; as such, there can be reliability benefit from ensuring that certain BES equipment utilized to aggregate the individual units to a common point of connection are operated and maintained as required in PRC-005. When evaluated individually, however, the generating units themselves do not have the same impact on BPS reliability as the system used to aggregate the units. The unavailability or failure of any one individual generating unit would have a negligible impact on the aggregated capability of the Facility; this would be irrespective to whether the dispersed generation resource became unavailable due to occurrence of a legitimate fault condition or due to a failure of a control system, protective element, dc supply, etc.”

https://www.nerc.com/pa/Stand/Prjct201401StdrdsAppDispGenRes/DGR_White_Paper_v17_clean_01_13_2016_Final_rev1.pdf

For dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, such as wind generation Facilities, each individual generating unit, a single wind turbine generator (WTG), can have many applicable freeze protections, that if not operational, could impede on the WTG’s ability to operate to its minimum design temperature. However, as stated by Project 2014-01 Standards Drafting Team, “The unavailability or failure of any one individual generating unit would have a negligible impact on the aggregated capability of the Facility;”. Acciona would like to request the Project 2019-06 Cold Weather Standards Drafting Team consider whether Requirement R7. should be applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, considering the precedent set by Project 2014-01 Standards Applicability for Dispersed Generation Resources Standards Drafting Team. If the Project 2019-06 Cold Weather Standards Drafting Team determines that Requirement R7. should be applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, then Acciona would like to suggest Project 2019-06 Cold Weather Standards Drafting Team consider a percentage/time-based approach for the applicable freeze protections installed in an individual generating units of dispersed power producing resources. For example, 20% of the applicable freeze protections installed in an individual generating units of dispersed power producing resources must be maintained and inspected on annual basis and 100% applicable freeze protections installed in an individual generating units of dispersed power producing resources must be maintained and inspected on a five year basis.

Requirement R7.3.1.

‘Cold weather’ is not a defined term and is interpreted differently depending on a generation Facility(ies) geographic location’s climate. Acciona suggests that ‘operating limitations’ in scope should be the ones that impede on the generation Facility(ies) ability to operate to its minimum design operating temperature or minimum operational temperature demonstrated by historical performance during cold weather. This would ensure that this is a capability-based requirement.

Requirement R7.3.2., 7.3.2.1. & 7.3.2.2.

Acciona suggests using the term ‘minimum design operating temperature’ and ‘minimum demonstrated operating temperature’ in R7.3.2.1. & R7.3.2.2, respectively. This would ensure that only the minimum ambient temperature that would impede on the generation Facility(ies) ability to operate are in scope. Using this also ensures only freeze protections and operating limitations that would impede on the generation Facility(ies) ability to operate to its minimum design operating temperature or minimum operational temperature demonstrated historical performance during cold weather should be in scope.

Requirement R7.4.

Acciona is recommending the removal of this Requirement R7.4. as it does not provide a performance, risk, and competency-based reliability requirement that support an effective defense-in-depth strategy nor does it identify a clear and measurable expected outcome. As stated in Requirement R7. the cold weather preparedness plan (CWPP) must be ‘implemented’. It is inherent that to ‘implement’ the CWPP site personnel would already be required, either directly or indirectly, to be aware of the required task. For example, Requirement R7.2. requires annual maintenance and inspection of freeze protections to be a part of the CWPP. Therefore, for a Generator Owner (GO) to successfully implement its CWPP qualified site personnel would need to perform the annual maintenance and inspection of freeze protections, which makes them aware of their roles & responsibilities as related to the CWPP.

Acciona suggests the following language based on the aforementioned comments:

R7. Each Generator Owner shall develop, maintain, and implement one or more documented cold weather preparedness plan(s) for its generating Facility(ies) as follows:

7.1. The cold weather preparedness plan(s) shall include the following, at a minimum:

7.1.1. generation Facility(ies) cold weather data including:

7.1.1.1. minimum design operating temperature; or

7.1.1.2. minimum demonstrated operating temperature based on historical performance during the coldest weather periods in the previous 5 years; and

7.1.1.3. generation Facility(ies) operating limitations that would prevent the generation Facility(ies) from operating to the temperatures identified in R7.1.1.1. or 7.1.1.2.;

7.1.2. the generation Facility(ies) freeze protection measures that allow the generation Facility(ies) to operate to the temperatures identified in R7.1.1.1. or 7.1.1.2.;

7.2. At least once per calendar year and with no more than 15 calendar months between, Generator Owners shall review the cold weather preparedness plan(s);

7.3. At least once per calendar year and with no more than 15 calendar months between, Generator Owners shall perform maintenance and inspection of generating Facility(ies) freeze protection measures as identified in Requirement R7.1.2.

7.3.1 Freeze protection measures as identified in Requirement R7.1.2. that are physically located in the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition shall be maintained and inspected as follows:

~ 20% of the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition located at a single generation Facility shall have 100% of each individual generating units freeze protection measures as identified in Requirement R7.1.2. maintained and inspected at least once per calendar year and with no more than 15 calendar months between; and

~ 100% of the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition located at a single generation Facility shall have 100% of each individual generating units freeze protection measures as identified in Requirement R7.1.2. maintained and inspected at least once per rolling 60 calendar month period.

(Please note Requirement R7.3.1. is suggested language only if Project 2019-06 Cold Weather Standards Drafting Team determines that Requirement R7. should be applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition)

Likes 0

Dislikes	0
Response	
<p>Thank you for your comments. The purpose statement has been updated to reflect the new requirements for EOP-011-2. Please see the updated modifications to the EOP-011-2 standards, which address some of your concerns.</p> <p>Based on much deliberation over the term generating Facility, the SDT determined generating units is the appropriate facility term for the EOP-011 standard. Lastly, the SDT is not defining cold weather as a glossary term. This will be defined with your cold weather preparedness plan based on geographical regions.</p>	
Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1	
Answer	No
Document Name	
Comment	
<p>MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.</p>	
Likes	0
Dislikes	0
Response	
<p>Please see the SDT's response to MRO NSRF.</p>	
Larry Rogers - Southern Indiana Gas and Electric Co. - 5	
Answer	No
Document Name	
Comment	

CenterPoint Energy believes Winter Preparations should be standard operating procedure, which would aid in avoiding Emergency Operations. The cold weather preparedness plan(s) requirement should not be in any of the EOP standards. EOP standards should remain for emergency events such as blackouts, loss of control center, GMD events, and reporting.

The FAC Standards focus on facility design, connections, and maintenance and therefore more applicable for the inclusion of ratings and parameters in which facilities should be operated during hot and cold weather conditions.

It is our suggestion to develop a new FAC Standard which covers Generation and TO/TOP Substation Winterization practices and requirements. The new Standard would focus on the development and implementation of preventative standard operating procedures intended to mitigate cold weather emergency-level situations. The current EOP-011 would continue to focus on TOP/BA procedures to mitigate emergency situations, if they arise, including severe weather conditions.

Likes	0
Dislikes	0

Response

Thank you for your comments. Although the SDT understands that cold weather is normally expected, if the proper cold weather preparations are not implemented and maintained, the cold weather can result in an emergency such as those experienced in 2011, 2014, 2018 and the recent issues in Texas.

The SDT does not believe maintenance or design changes related to cold weather preparation would be appropriate to be included in the family of FAC standards since areas such as freeze protection measures focus on the boiler, support systems, and balance of plant which is outside the scope and intentions of the FAC standards. In addition, majority of industry agreed with EOP-011 to be the right location for these requirements.

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer	No
Document Name	

Comment

The term “cold weather” can have varied interpretation across the continent. The use of “any other” to extreme weather conditions in addition to “cold weather conditions” within the provisions of proposed R1.2.6 and R2.2.9 provisions of the Standard implies that cold weather is an extreme weather condition. BC Hydro operates many months of the year in cold weather conditions, which are not considered abnormal nor they result in operating Emergencies subject to EOP-011. If the “cold weather” term will become part of EOP-011, BC Hydro recommends that a clarification/definition within the context of extreme weather conditions be also developed.

The requirements for Generator Owner cold weather preparedness plans as drafted in Requirement R7 include provisions for freeze protection measures (R7.1), maintenance (R7.2), training (R7.4). BC Hydro’s view is that such provisions are better suited to appropriate Facility maintenance and/or design, and personnel training standards. BC Hydro recommends that EOP-011 do not include GO-applicable preparedness plans and that EOP-011 remain applicable to BA, RC and TOP functional entities.

BC Hydro Generation equipment are mostly physically located inside in climate controlled buildings. The equipment located in the switchyard outside of the building and which are exposed to weather conditions, are managed by Generator Owner and Transmission Owner functional entities. BC Hydro recommends that SDT considers applicability of the proposed cold weather preparedness plan(s) to the Transmission Owner functional entity.

Likes	0
Dislikes	0

Response

Thanks for your comments. The SDT has stated in previous responses to industry, that although a definition of “cold weather” was suggested, it would be very difficult to develop a consistent and acceptable term since there are different interpretations across the ERO and varying weather conditions.

The SDT does not believe maintenance or design changes related to cold weather preparation would be appropriate to be included in the family of FAC standards since areas such as freeze protection measures focus on the boiler, support systems, and balance of plant which is outside the scope and intentions of the FAC standards. In addition, majority of industry agreed with EOP-011 to be the right location for these requirements.

The SDT determined to focus on the findings and recommendations of the South Central Cold Weather Event report which did not identify significant issues and concerns with Transmission Owners.

Erin Green - Western Area Power Administration - 1,6	
Answer	No
Document Name	
Comment	
Support comments by Western Area Power Administration, Sean Erickson, Segment 1.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT response to Western Area Power Administration, Sean Erickson, Segment 1.	
Glenn Pressler - CPS Energy - 3	
Answer	No
Document Name	
Comment	
<p>The EOP-011 should remain for emergency operation events, such as blackouts, and procedures to mitigate emergency situations, if they arise. These procedures would include emergency events following severe weather conditions. Winterization preparedness and practice requirements should be defined under FAC Standards or a new EOP specific for cold weather events. Adding 1.2.6 and 2.2.9 just seems like a redundant way to add something specific for the cold weather event issue, where do you stop?.</p> <p>Would be supportive of GO cold weather requirements, such as redlined in EOP-011, however concerns with some of the existing redline wording includes:</p> <p>R7.1 – the word “unique” is ambiguous. Suggest factual measure based on factual numbers and historical possible temperatures.</p> <p>R7.3.2.1 and R7.3.2.2 – the minimum design temp or the 5-years reference is not sufficient to protect against what happened in the Texas 2021 event. Would need 100+ year worst imaginable wording to even get close to providing protection.</p>	

Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. Although the SDT understands that cold weather is normally expected, if the proper cold weather preparations are not implemented and maintained, the cold weather can result in an emergency such as those experienced in 2011, 2014, 2018 and the recent issues in Texas</p> <p>The SDT does not believe maintenance or design changes related to cold weather preparation would be appropriate to be included in the family of FAC standards since areas such as freeze protection measures focus on the boiler, support systems, and balance of plant which is outside the scope and intentions of the FAC standards.</p> <p>Please see the modifications made by the SDT, by removing the 5-year reference.</p>	
Gladys DeLaO - CPS Energy - 1	
Answer	No
Document Name	
Comment	
<p>The EOP-011 should remain for emergency operation events, such as blackouts, and procedures to mitigate emergency situations, if they arise. These procedures would include emergency events following severe weather conditions. Winterization preparedness and practice requirements should be defined under FAC Standards or a new EOP specific for cold weather events. Adding 1.2.6 and 2.2.9 just seems like a redundant way to add something specific for the cold weather event issue, where do you stop?.</p> <p>Would be supportive of GO cold weather requirements, such as redlined in EOP-011, however concerns with some of the existing redline wording includes:</p> <p>R7.1 – the word “unique” is ambiguous. Suggest factual measure based on factual numbers and historical possible temperatures.</p> <p>R7.3.2.1 and R7.3.2.2 – the minimum design temp or the 5-years reference is not sufficient to protect against what happened in the Texas 2021 event. Would need 100+ year worst imaginable wording to even get close to providing protection.</p>	

Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. Although the SDT understands that cold weather is normally expected, if the proper cold weather preparations are not implemented and maintained, the cold weather can result in an emergency such as those experienced in 2011, 2014, 2018 and the recent issues in Texas</p> <p>The SDT does not believe maintenance or design changes related to cold weather preparation would be appropriate to be included in the family of FAC standards since areas such as freeze protection measures focus on the boiler, support systems, and balance of plant which is outside the scope and intentions of the FAC standards.</p> <p>The SDT removed the 5-year reference from EOP-011.</p>	
Janet OBrien - WEC Energy Group, Inc. - 5	
Answer	No
Document Name	
Comment	
Support comments submitted by Tom Breene of WEC Energy Group.	
Likes	0
Dislikes	0
Response	
Please see the SDT response to Tom Breene of WEC energy Group.	
Donald Lock - Talen Generation, LLC - 5	
Answer	Yes
Document Name	

Comment

Talen agrees with placement of the new Generator Owner cold weather preparedness plan(s) requirement in the EOP-011 standard.

Likes 0

Dislikes 0

Response

Thank you for your support.

Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne

Answer

Yes

Document Name

Comment

ISO New England (ISO-NE) supports the inclusion of these requirements in EOP-011; however, recommends the SDT now consider including provisions for non-BES Generators aggregated at a BES station as being included in the NERC Compliance Enforcement Program.

We also offer additional comments for EOP-011:

EOP-011, 3. Purpose expand to include the Generator Operator function as follows:

Purpose: To ensure each Transmission Operator, Balancing Authority, Generator Owner and Generator Operator has developed plan(s) to mitigate and prepare for operating Emergencies; and that Transmission Operator and Balancing Authority Operating Plans are coordinated within a Reliability Coordinator Area.

EOP-011, 4. Applicability expand to include the Generator Operator as one of the Functional Entities.

EOP-011-2, R1: addition for clarification

1.2.6. Provisions to determine potential Reliability impacts of:

Requirement 1.2 states the TOP's Operating Plans(s) should include processes to prepare for and mitigate Emergencies. Reliability impacts of cold weather conditions and any other extreme weather conditions are not a process, but rather a type of Emergency that the TOP must have a plan(s) to address. This addition will clarify that that a process should be in place to address cold weather and other extreme conditions.

EOP-011-2, R7: Just as TOPs and RCs (in R1 and R2) "shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analysis, Real-time monitoring, and Real-time Assessments", GOs should be required to provide the information that is requested by the TOP and RC.

We also recommend the SDT consider the below modifications to R7 (some of which are from ISOs that have such mitigation/requirements in-place due to previous experience), including a recommendation to provide a clear, measurable objective for Part 7.1. Without a clear, measurable objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit.

R7. Each Generator Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) for its solely and jointly owned generator Facility(ies). The extreme weather preparedness plan(s) shall be reviewed, tested, and applicable portions shall be implemented prior to each applicable season, and shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

7.1. freeze protection measures based on unique factors such as geographical location and plant configuration are adequate to operate through extreme temperatures and weather that are consistent with the geography and meteorology for the location of the unit(s)

7.1.1 provisions to include the impact of precipitation (e.g. sleet, snowpack)

7.2 Annual maintenance and inspection of freeze protection measures; and

7.3. minimum design temperature or minimum demonstrated historical performance during cold weather in the previous 5 years or maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Such Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in extreme cold weather; and

7.3.2. Generating unit(s) operating limitations in extreme hot weather; and

7.3.3. Generating unit(s) operating limitations in extreme precipitation events; and

7.3.4. Generating unit(s):

7.3.4.1. minimum and maximum design temperature; or

7.3.4.2. minimum demonstrated historical performance during extreme weather;

R8. Each Generator Operator shall develop, maintain, and implement one or more cold weather preparedness plan(s) for the generating Facility(ies) it operates. The cold weather preparedness plan(s) shall include the following at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

8.1. Awareness training on the detailed roles and responsibilities of site personnel contained in the cold weather preparedness plan, including notifications to BAs/RCs/TOPs regarding generator availability and operating limitations during extreme weather.

ISO-NE recommends the SDT consider adding frequency and timing for the training requirement, such as “Annual” and “within 60 days of the start of the season.”

ISO-NE recommends adding provisions for the reliability impacts of hot weather as a separate numbered item. Cold weather is being addressed in this Standard update, but hot weather considerations as well as impacts of extreme precipitation events are similarly important to monitor and understand. Implementing cold weather requirements now and waiting for a hot weather event to implement hot weather requirements may be a mistake.

ISO New England (ISO-NE) supports the inclusion of these requirements in EOP-011; however, recommends the SDT now consider including provisions for non-BES Generators aggregated at a BES station as being included in the NERC Compliance Enforcement Program.

We also offer additional comments for EOP-011:

EOP-011, 3. Purpose expand to include the Generator Operator function as follows:

Purpose: To ensure each Transmission Operator, Balancing Authority, Generator Owner and Generator Operator has developed plan(s) to mitigate and prepare for operating Emergencies; and that Transmission Operator and Balancing Authority Operating Plans are coordinated within a Reliability Coordinator Area.

EOP-011, 4. Applicability expand to include the Generator Operator as one of the Functional Entities.

EOP-011-2, R1: addition for clarification

1.2.6. Provisions to determine potential Reliability impacts of:

Requirement 1.2 states the TOP's Operating Plans(s) should include processes to prepare for and mitigate Emergencies. Reliability impacts of cold weather conditions and any other extreme weather conditions are not a process, but rather a type of Emergency that the TOP must have a plan(s) to address. This addition will clarify that that a process should be in place to address cold weather and other extreme conditions.

EOP-011-2, R7: Just as TOPs and RCs (in R1 and R2) "shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analysis, Real-time monitoring, and Real-time Assessments", GOs should be required to provide the information that is requested by the TOP and RC.

We also recommend the SDT consider the below modifications to R7 (some of which are from ISOs that have such mitigation/requirements in-place due to previous experience), including a recommendation to provide a clear, measurable objective for Part 7.1. Without a clear, measurable objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit.

R7. Each Generator Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) for its solely and jointly owned generator Facility(ies). The extreme weather preparedness plan(s) shall be reviewed, tested, and applicable portions shall be implemented prior to each applicable season, and shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

7.1. freeze protection measures based on unique factors such as geographical location and plant configuration are adequate to operate through extreme temperatures and weather that are consistent with the geography and meteorology for the location of the unit(s)

7.1.1 provisions to include the impact of precipitation (e.g. sleet, snowpack)

7.2 Annual maintenance and inspection of freeze protection measures; and

7.3. minimum design temperature or minimum demonstrated historical performance during cold weather in the previous 5 years or maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Such Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in extreme cold weather; and

7.3.2. Generating unit(s) operating limitations in extreme hot weather; and

7.3.3. Generating unit(s) operating limitations in extreme precipitation events; and

7.3.4. Generating unit(s):

7.3.4.1. minimum and maximum design temperature; or

7.3.4.2. minimum demonstrated historical performance during extreme weather;

R8. Each Generator Operator shall develop, maintain, and implement one or more cold weather preparedness plan(s) for the generating Facility(ies) it operates. The cold weather preparedness plan(s) shall include the following at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

8.1. Awareness training on the detailed roles and responsibilities of site personnel contained in the cold weather preparedness plan, including notifications to BAs/RCs/TOPs regarding generator availability and operating limitations during extreme weather.

ISO-NE recommends the SDT consider adding frequency and timing for the training requirement, such as “Annual” and “within 60 days of the start of the season.”

ISO-NE recommends adding provisions for the reliability impacts of hot weather as a separate numbered item. Cold weather is being addressed in this Standard update, but hot weather considerations as well as impacts of extreme precipitation events are similarly important to monitor and understand. Implementing cold weather requirements now and waiting for a hot weather event to implement hot weather requirements may be a mistake.

Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The NERC Standards only apply to BES generation. Please see the updated modifications to EOP-011 incorporating some of your comments regarding a new requirement R8 to address awareness training. The provisions of the SAR were only to address the findings and recommendations from the South Central Cold Weather Event, and the SAR scope is limited to cold weather.</p>	
<p>Todd Bennett - Associated Electric Cooperative, Inc. - 3</p>	
Answer	Yes
Document Name	
Comment	
<p>While the proposed change in EOP-011-1 R2.2.9 is acceptable, some of the language in R7 is not. Overall, the requirement language does not state a clear measurable objective and thus does not meet the attributes of a results-based standard as described in Section 2.4 of the Standards Process Manual. Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Additionally, the requirement to “develop and maintain” along with responsibilities to provide awareness training in R7.4 are administrative in nature adding associated costs without commensurate reliability benefit. By requiring the entity to “implement” the plan, it is implied that the plan is developed and maintained and personnel are aware of their roles and responsibilities. This can be confirmed via ERO CMEP activities (internal control evaluations). Therefore, the language changes below are provided for consideration by the 2019-06 SDT. The reliability objective was taken from page 86 of The South Central United States Cold Weather Bulk Electronic System Event of January 17, 2018:</p> <p><i>R7. Each Generator Owner shall implement one or more cold weather preparedness plan(s) for its generating unit(s) to maximize generator output and availability for BES reliability during these conditions. The cold weather preparedness plan(s) shall include the following, at a minimum</i></p> <p><i>7.1. Generating unit(s) freeze protection measures based on unique factors such as geographical location and plant configuration;</i></p> <p><i>7.2. Annual maintenance and inspection of generating unit(s) freeze protection measures; and</i></p>	

7.3. *Generating unit(s) cold weather data, to include:*

7.3.1. *Generating unit(s) operating limitations in cold weather; and*

7.3.2. *Generating unit(s):*

7.3.2.1. *minimum design temperature; or*

7.3.2.2. *minimum demonstrated historical performance during cold weather in the previous 5 years;*

7.4. **DELETED**

Likes 1	Sho-Me Power Electric Cooperative, 1, Dawson Peter
Dislikes 0	

Response

Thank you for your comments. The SDT understands your concerns and has modified the training requirements and consolidated the training requirements to a single requirement within EOP-11. The SDT does not agree with deleting awareness training based on the importance of “winter-specific and plant-specific awareness training” outlined in “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018”.

Bruce Reimer - Manitoba Hydro - 1

Answer	Yes
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Document Name

Comment

Why is there a need to specifically identify cold weather events here? The current standard states that "Reliability impacts of extreme weather conditions." shall be considered when building Emergency Plans. Will extreme heat, or drought be added in the future as well? Is this being suggested since regions that do not typically experience cold weather events were recently impacted and had not considered them during their plan development? Would it not be better to leave the statement as is, and provide examples of each type of

event? i.e. 1.2.6. Reliability impacts of extreme weather conditions, such as ice/snowstorms, heat wave, drought, heavy rains, flooding, earthquakes, wind events, landslides, tsunami, etc.?

Likes 0

Dislikes 0

Response

Thank you for your comments. Cold weather events are specifically identified to ensure that the responsible functional entities direct their efforts to this type of weather condition. Although it is understood that extreme weather conditions may include situations such as extreme heat, drought, hurricanes, etc., weather conditions additional to cold weather are outside the scope of the SAR. The extreme events language within the requirement is legacy language and not changes have been made to impact it.

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather

Answer

Yes

Document Name

Comment

We agree with the requirement, however we believe that there should be coordination between Generation Owners, Transmission Planners and Planning Coordinators on the appropriate level of winterization requirements and minimum design temperature requirements. Transmission Planners and Planning Coordinators have the visibility of the entire generation fleet within their area and therefore, should have the ultimate responsibility to set the appropriate minimum design, operating and cold start temperature requirements for the Generator Owners.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SAR scope identifies the Generator Owner, Generator Operator, Reliability Coordinator, Balancing Authority, and Transmission Operator as impacted functional entities based on the FERC Report and industry feedback during the SAR's development.

Minimum design temperature of a generating unit is initially established by the engineering firm that designed the facility. The Generator Owner needs to ensure that are aware of the minimum design temperature and maintain the facility so that it can operate at this temperature. Likewise, only the Generator Owner can determine the operating and cold start temperatures based on actual operating data, testing and analysis. For each of these cases, the temperatures should be provided to the entities which request this information.

Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC

Answer Yes

Document Name

Comment

Seattle City Light appreciates the efforts of the SDT to balance the requirement for an industry-wide standard while not burdening entities located in routinely cold regions with administrative activities. As part of this balance, Seattle understands that the SDT intends the term “cold weather” and associated activities to apply to conditions that are extremely or abnormally cold for a particular location or region, rather than applying a single measure of “cold weather” (such as “below freezing”) across the continent. What is “cold weather” for a plant in Texas is routine weather for a plant in Minnesota or Canada, for instance. To make this distinction clear, Seattle recommends that wherever the term “cold weather” has been added to a Standard, it should be replaced with the term “abnormally cold weather.”

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT considered your suggestion regarding “abnormally cold weather” when revising EOP-011. The standard is intended to cover cold weather; and abnormally cold weather could be considered a sub-set of cold weather or an extreme weather condition which the BA already covers in its Emergency Operating Plan under EOP-011.

Leonard Kula - Independent Electricity System Operator - 2

Answer Yes

Document Name	
Comment	
N/A.	
Likes 0	
Dislikes 0	
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	Yes
Document Name	
Comment	
<p>Many generating units exist in tropic/subtropic parts of the US where the proposed cold weather requirements are much more burdensome than necessary. Of course, the proposed change recognizes this in Part 7.1 when discussing “<i>unique factors such as geographical location</i>”. However, the proposed change continues to require identification of “<i>generating unit operating limitations in cold weather</i>” (Part 7.3.1) regardless of whether the generating unit is located in a geographical location where cold weather requirements are minimal or non-existent. The section should include specificity as to what geographic areas would require addressing parts 7.2, 7.3, and 7.4.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Thank you for your comments. Although a geographic area may not normally experience cold weather, unusual changes in weather patterns, such as the Polar Vortex, may periodically occur which prevents the SDT from adding specificity to the standard.</p>	
<p>Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company</p>	

Answer	Yes
Document Name	
Comment	
<p>Southern Company agrees that EOP-011 is the best fit for this new cold weather preparedness plan requirement. Southern Company offers the following suggestions for the SDT.</p> <ol style="list-style-type: none"> 1. Revise the wording of proposed requirement 7.3.2.2 <ol style="list-style-type: none"> a. The current wording is not specific enough on what data is being asked for (Temperature, operational limitations, etc.). b. Additionally, as currently written, the GO could provide the minimum design temperature or the unit’s minimum demonstrated historical performance within the last 5 years. If the historical performance within the last five years is significantly higher than the design temp, and this number is the one provided to the RC/BA, it could cause the RC/BA to be overly conservative. For example, a unit provides a demonstrated historical performance in the last 5 years of 25 degrees, however the unit has a design temperature of 15 degrees, but since the RC/BA only has the 25 degree data point, they are overly conversative/cautious in their system setup since they do not know the unit’s full capabilities (designed to 15 degrees). c. Suggest re-wording to “If design temperature is not available, the minimum historical temperature in cold weather in the previous 5 years in which the unit has demonstrated full output operation”. 2. Discuss moving proposed requirement 7.4 to PER-006 <ol style="list-style-type: none"> a. Would ensure consistency as PER-006’s Purpose is “to ensure that personnel are trained on specific topics essential to reliability to perform or support Real-time operations of the Bulk Electric System.” Comment is intended to capture the GO/GOP training requirements in regards to this cold weather standard only, and not to reflect GO/GOP attendance at other training outlined in PER-006. b. Would require that the GO be added to the Applicability of PER-006 if moved c. Would require that the Functional Entity language (specifically existing GOP language) be revisited to ensure alignment and consistency with the new cold weather preparedness training requirement 	

3. GOP applicability

a. There are instances where “Company X” owns a facility and “Company Y” operates and maintains the facility. In some of these instances this 3rd party operator is the registered GOP.

b. There could be compliance conflicts if a GO is held accountable for this new requirement and the associated cold weather preparedness plan that it “develops and maintains”, but one that a separate GOP “implements” on their behalf. There are also training considerations here as currently written (GO training the GOP).

Likes 0

Dislikes 0

Response

The SDT has taken your suggestions into consideration when revising EOP-011. The SDT understands your concerns and has modified the training requirements and consolidated the training requirements to a single requirement within EOP-11. Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. The Additionally, the SDT modified moved the training requirements by removing it from Requirement R7 and consolidating training awareness into a single requirement in (R8) within EOP-11.

Dania Colon - Orlando Utilities Commission - 5

Answer

Yes

Document Name

Comment

For Florida entities it will be challenging to develop cold weather plans with the “cold” weather we experience. See #4 below.

Training requirements belong in the PER Standards and not EOP Standards. Recommend moving R7.4 to PER-006-1.

Likes 0

Dislikes	0
Response	
Thank you for your comment. As the SDT stated in earlier responses to industry, it is understood that the scope and complexity of cold weather preparedness plans will vary across the ERO. Each Generator Owner will have to determine the appropriate plan based on their geographic area and weather conditions.	
Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF	
Answer	Yes
Document Name	
Comment	
The NAGF agrees with placement of the new Generator Owner cold weather preparedness plan(s) requirements in the EOP-011 standard. Consolidating the GO cold weather preparedness plan requirements under one standard (EOP-011) provides clarity to industry rather than spreading the requirements over multiple standards (ex. FAC-003).	
Likes	0
Dislikes	0
Response	
The SDT appreciate your support of this effort.	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	Yes
Document Name	
Comment	
While we agree to the placement of the requirements as part of R1.2.6, we recommend having cold weather conditions as a subset of extreme weather conditions, see suggested edit below	

1.2.6. Reliability impacts of:

1.2.6.1. extreme weather conditions

1.2.6.2. cold weather

1.2.6.3 other extreme weather conditions

For R7.4 Awareness Training – two items to consider:

- Requirement focuses on GO/ cold weather only. Recommend this is expanded to incorporate other or specified extreme weather conditions
- Requirement does not specify how often the training needs to be provided, however, during the SDT Webinar annual training was noted as the intended periodicity. If that is indeed the expectation, recommend the SDT clarify the requirement. From a higher level perspective, we are concerned with the number of GO/GOP training requirements that are being introduced in various standards. Recommend NERC staff consider consolidation of training requirements.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT understands your concerns and has modified the training requirements and consolidated the training requirements to a single requirement within EOP-11. Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. The Additionally, the SDT modified moved the training requirements by removing it from Requirement R7 and consolidating training awareness into a single requirement in (R8) within EOP-11.

Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer

Yes

Document Name

Comment

Black Hills Corporation agrees that Requirement 7 can remain in EOP-011 however;

- Should Add to the applicability, Transmission Owner (TO) that own synchronous condensers. i.e. like stated in MOD-025 applicability 4.1.2.
- Because generators are designed specific to their “location/type/etc.” – this requirement will take “Plans” not just a Plan. They would need to be unit specific. This will take time to develop for entities with large numbers of BES applicable Facilities/Plants.
- 7.2 “Annual” is not acceptable; change to more consistent periodicity as stated in other Reliability Standards. Example: 12 calendar months not to exceed 15 calendar months.
- 7.3 Cold Weather Data: to get usable performance data for the TOP/BA’s – this would involve a lot of time/extra work for both the TOP Real Time individuals as well as the GO generator facility management. Many older generators do not have the capabilities of prior data, as well as the TOP not having generator data to provide to them in order to direct them to what time frame of performance data is needed.
- 7.3.1. operating limitations in cold weather can vary by the conditions of the “extreme” weather. This is hard to define.
- Per 7.3.2.1. is the minimum design temperature enough to even help the TOP in Real Time and Emergencies? Black Hills Corporation TOP does not think so, as they feel this is part of the gap!
- 7.3.2.2. designated 5 Years – where did that time frame come from? This does not seem consistent with evidence retention periods of other reliability standards. Taking this to 1.2. Evidence Retention section; ...retains from last audit (page 7 of 21 draft). This could spread data to be kept 10-12 years based on the GO Regional Entity audit schedule.
- 7.4 What constitutes “Awareness” and how often? This needs to be clarified. Mandatory Training seems ‘over the top’ in that knowing how to operate their generator units by the “site operators” is part of their job. This is felt to be a waste of site operators valuable time. Operators react to all conditions as needed.

Likes 0

Dislikes 0

Response

Thank you for your comments. Although the SDT appreciates your suggestion regarding the ownership of synchronous condensers, this equipment is primarily used for reactive support and was not a concern identified in the South Central Cold Weather event.

It is understood that an entity may need to develop separate cold weather preparedness plans for each generating unit based on their configuration and characteristics. The time to develop different plans will be taken into consideration in the implementation plan of the standard.

Regarding “annual”, the SDT took your concern into consideration when revising EOP-011.

Regarding “cold weather data” and the possible time required to collect and organize this data will be taken into consideration in the implementation plan of the standard.

Regarding “operating limitations” the SDT took this into consideration when revising EOP-011.

Regarding “minimum design temperature”, since this may not be available or known by the Generator Owner, historical performance data can be used as a proxy or an engineering study to determine the data may be used in the alternative.

The SDT removed the “5 year” period from the standard sub-part. Please see the SDTs modifications made to EOP-011.

The SDT understands your concerns and has modified the training requirements and consolidated the training requirements to a single requirement within EOP-11. The SDT does not agree with deleting awareness training based on the importance of “winter-specific and plant-specific awareness training” outlined in “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018”.

Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric

Answer	Yes
Document Name	
Comment	
DTEE agrees with the NAGF for placement of the new Generator Owner cold weather preparedness plan(s) requirements in the EOP-011 standard. Consolidating the GO cold weather preparedness plan requirements under one standard (EOP-011) provides clarity to industry rather than spreading the requirements over multiple standards (ex. FAC-003).	

Likes	0
Dislikes	0
Response	
The SDT appreciates your support of this effort.	
Devon Tremont - Taunton Municipal Lighting Plant - 1	
Answer	Yes
Document Name	
Comment	
TMLP agrees that EOP-011 is the most effective place to insert cold weather requirements, though we disagree with the current proposed redlines. Concerns will be addressed in the later questions.	
Likes	0
Dislikes	0
Response	
The SDT appreciates your support of this effort and will attempt to address any concerns when revising EOP-011.	
Marcus Bortman - APS - Arizona Public Service Co. - 6	
Answer	Yes
Document Name	
Comment	
AZPS agrees but also recommends adding Generator Operator to the scope of R7 as they are the ones that will be implementing the weather preparedness plans.	
“Cold weather” is not defined. “Extreme weather conditions” is not defined. Is it based on temperature or geography? What is the scope of “cold” and “extreme”?	

Likes	0
Dislikes	0
Response	
<p>The SDT has taken your recommendation to add Generator Operator to R7 when revising EOP-011. The SDT will not attempt to define “cold weather” since there will be different interpretations across the geographic areas of the ERO. Examples of “extreme weather conditions” may include hot weather/droughts, high winds, heavy rains, etc.</p>	
<p>Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb</p>	
Answer	Yes
Document Name	
Comment	
<p>Evergy supports and incorporates by reference Edison Electric Institute’s response to Question 1.</p>	
Likes	0
Dislikes	0
Response	
<p>Please see the SDT’s response to EEI Q1.</p>	
<p>Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE</p>	
Answer	Yes
Document Name	
Comment	

OGE agrees with including the GO cold weather preparedness plan requirements within EOP-011; however, we do have concerns with the proposed Requirement 7, as detailed below:

R7.1 – the usage of the word “unique” is ambiguous. We suggest removing “unique”. Our proposed R7.1 language:

- 7.1. Generating unit(s) freeze protection measures based on factors such as geographical location and plant configuration;
- R7.3.2.2 – It is not clear whether the demonstrated historical performance data is for a rolling 5-years since the proposed requirement language is not clear on whether the GOs will need to review their cold weather preparedness plan annually. We suggest removing the 5 years requirement language and including the amount of time for past performance (at least 5 years of cold weather data) to be published in an Implementation Guidance or Technical Rationale document. We recommend adding an additional subpart if both R7.3.2.1 and R.7.3.2.2 cannot be met. Our proposed R7.3.2.2 and R7.3.2.3 language:
 - “7.3.2.2. minimum demonstrated historical performance during cold weather ; or”
 - “7.3.2.3. engineering analysis to determine minimum cold weather performance.”

Likes 0

Dislikes 0

Response

The SDT has taken your concerns into consideration when revising EOP-011. Please see the EOP-011 standard for additional modifications.

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI

Answer Yes

Document Name

Comment

Agree with the addition, however, our Generators are located in North East (Temperate Region), they are prepared for extreme but possible conditions. This would just cause an Administrative redundancy of cold weather plans that already exist and have historically been in place from their initial design.

Likes	0
Dislikes	0
Response	
Thank you for your comments. Since cold weather plans have already existed, all that is needed is to ensure that the plans align with EOP-011.	
David Jendras - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
Ameren Agrees with and supports NAGF comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to NAGF.	
Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
EEI supports the placement cold weather requirements within Requirement R7, in EOP-011.	
Likes	0
Dislikes	0

Response	
That SDT team thanks you for your support.	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
Xcel Energy agrees with the addition of the proposed new requirement in EOP-011. In regards to proposed R3, we acknowledge that some older plants may not have documented minimum design temperatures, and aren't sure that a 5 year view of historical performance would be adequate to cover some of the more extreme events.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT removed the "5 year" phrase from R3. Please see the updated modifications.	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	
In EOP-011(R 7.3) needs an explanation on what is required on historical performance.	
Likes	1
Dislikes	0
Response	
Thank you for your comment. Please see the measures of the standard as this will provide you with examples of evidence may be.	

Thank you for your comment. Please see the measures of the standard as this will provide you with examples of evidence may be.

Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5

Answer Yes

Document Name

Comment

OGE agrees with including the GO cold weather preparedness plan requirements within EOP-011; however, we do have concerns with the proposed Requirement 7, as detailed below:

{C}· R7.1 – the usage of the word “unique” is ambiguous. We suggest removing “unique”. Our proposed R7.1 language:

{C}o {C}“7.1. Generating unit(s) freeze protection measures based on unique factors such as geographical location and plant configuration;”

{C}· R7.3.2.2 – It is not clear whether the demonstrated historical performance data is for a rolling 5-years since the proposed requirement language is not clear on whether the GOs will need to review their cold weather preparedness plan annually. We suggest removing the 5 years requirement language and including the amount of time for past performance (at least 5 years of cold weather data) to be published in an Implementation Guidance or Technical Rationale document. We recommend adding an additional subpart if both R7.3.2.1 and R.7.3.2.2 cannot be met. Our proposed R7.3.2.2 and R7.3.2.3 language:

{C}o {C}“7.3.2.2. minimum demonstrated historical performance during cold weather in the previous 5 years; or”

{C}o {C}“7.3.2.3. engineering analysis to determine minimum cold weather performance.”

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the updated modifications made by the SDT. The word “unique” has been removed from R7 Part 7.1. and 5 years has been removed from R7 Part 7.3.2.2.

Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
<p>Exelon supports the placement of cold weather requirements within Requirement R7, in EOP-011.</p> <p>On Behalf of Exelon, Segments: 1, 3, 5, 6</p>	
Likes	0
Dislikes	0
Response	
The SDT appreciates your support of this effort.	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	Yes
Document Name	
Comment	
<p>CEPM agrees with the inclusion of the GO requirements in EOP-011 R7 with these considerations:</p> <ul style="list-style-type: none"> - While the requirement gives the plant the latitude to come up with its own plan for cold weather preparedness, it also leaves open the possibility that any failure of the unit during cold weather operations could be considered a violation - Should there be requirements to update the plan if historical performance indicate the plan was not effective? o No obligation to produce an effective/successful plan - What is the expectation if weather exceeds the design basis of the plant? 	

- Should there be some trigger (i.e. seasonal, calendar quarter, temperature, etc...) to invoke plan?
- No indication as to how often awareness training should take place.

Likes 0

Dislikes 0

Response

Thank you for your comments. If failure of the unit during cold weather is a direct result of deficiencies of the plan that did not meet all the conditions of R7, then it may be considered possible violation. However, the requirements are not intended to incorporate a must-run requirement and the SDT recognizes that multiple issues could contribute to a failure to start or run.

The cold weather preparedness plan should be updated when there is any deficiency identified.

It is assumed that the cold weather preparedness plan is effective/successful when the generating unit has not experienced a failure to start, derate or trip causing by a freezing issue during cold weather.

At times, it is assumed that weather will exceed the design basis of the plant. For these situations, the respective entities should have been made aware per EOP-011.

The time to invoke the cold weather preparedness plan is left to the discretion of the Generator Owner based on their knowledge and understanding of the plant design, configuration and operating experience.

It is up to the entity on how often training is completed. The SDT would recommend considering turnover, new employees, preparation before the winter period begins.

Bobbi Welch - Midcontinent ISO, Inc. - 2

Answer

Yes

Document Name

[2019-06_Cold_Weather_Unofficial_Comment_Form_MISO_03-12-21.pdf](#)

Comment

MISO is supportive of this project and supports the joint comments filed by the IRC SRC.

In addition, MISO believes weatherization must be addressed. We support the inclusion of preparedness requirements in EOP-011; however, we think that the proposed language in Part 7.1 does not go far enough. Without a clear, measurable objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. We recommend the SDT establish a national reference with geographic locational emphasis that can be used as a standard for consistency of application across the NERC footprint. As to what reference it should be, we leave it up to the SDT to produce some factors. As an example, something like the USDA gardening zone map may be sufficient as a temperature reference.

Recommended language:

R7. Each Generator Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) for its solely and jointly owned generator Facility(ies). The extreme weather preparedness plan(s) shall be reviewed, tested, and applicable portions shall be implemented prior to each applicable season, and shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

7.1. freeze protection measures based on factors such as geographical location and plant configuration that are adequate to operate through extreme temperatures and weather. The methodology used to establish extreme temperatures for each solely and joint owned unit shall be one or more industry standards such as the USDA Plant Hardiness Zone Map.

Likes	0
Dislikes	0

Response

Thank you for your comments. Please see the SDT’s response to IRC SRC. The SDT decided to utilize “generating unit” rather than “Facilities,” and declined to add a requirement that the cold weather plans be reviewed and tested as the language introduces ambiguity into the requirements which the SDT was not able to resolve. With regards to your suggestion to include a metric methodology or industry standard such as a weather map, the SDT determined that an industry-wide definition could not be established since geographic areas have their own interpretation; but the SDT is reviewing the issue for potential inclusion in supporting documentation.

Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey

Answer Yes

Document Name

Comment

No, PG&E believes Winter Preparations should be standard operating procedure, which would aid in avoiding Emergency Operations just as other utilities have commented. PG&E has a good handle on how cold weather impacts our facilities and how to respond without adding the additional requirement of a separate preparedness plan. PG&E Facilities have been designed to operate reliably in the conditional environment they exist in, most of which are located in cold mountainous terrain. Local Maintenance practices and procedures already exist as well as already established cold weather plans of which should be the only guidance necessary to continue reliable operation of PG&E’s facilities. In the point of recommending a locational fit PG&E would suggests considering the development of a new FAC Standard as the location.

Additionally, neither cold nor extreme weather are defined in this proposed standard nor in NERC’s Glossary of Terms.

PG&E recommends that the Distribution Provider (DP) be included in the Applicable FEs. NERC’s Functional Model v5.1 details the roles and relationships for each FE. Specifically, the DP is tasked to provide and implement load-shed capability. Timely and accurate load shedding is key to responsiveness to any Reliability Coordinator (RC) directives which support reliability of the grid during extreme weather events. This comment is specific to section 1.2.6 and 1.2.6.2 in the proposed draft of EOP-011-2. A corresponding requirement, evidence retention and VSLs should be developed to clarify the expectations for the DP, largely around the ability to support implementation of load shedding in a defined timeframe.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT agrees that any cold weather preparedness plan should be a S.O.P. Since it appears that your entity has already established cold weather preparedness plans, all this is required is to ensure that the plans align with EOP-011, R7.

The SDT determined that an industry-wide definition could not be established since geographic areas have their own interpretation. Also, since extreme weather was a term previously used in the existing EOP-011, the SDT determined that it would not be appropriate to develop a definition.

Although the SDT agrees that load shedding capability is important for any significant event, the main focus of the revised standard is cold weather preparedness from a generating unit prospective as required by the findings and recommendations of the South Central Cold Weather event

Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)

Answer	Yes
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Document Name	
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Comment

IRC SRC supports the inclusion of these requirements in EOP-011; however, recommends the SDT now consider including provisions for non-BES Generators aggregated at a BES station as being included in the NERC Compliance Enforcement Program.

We also offer additional comments for EOP-011:

EOP-011, 3. Purpose expand to include the Generator Operator function as follows:

Purpose: To ensure each Transmission Operator, Balancing Authority, Generator Owner and Generator Operator has developed plan(s) to mitigate and prepare for operating Emergencies; and that Transmission Operator and Balancing Authority Operating Plans are coordinated within a Reliability Coordinator Area.

EOP-011, 4. Applicability expand to include the Generator Operator as one of the Functional Entities.

EOP-011-2, R1: addition for clarification

1.2.6. Provisions to determine potential Reliability impacts of:

Requirement 1.2 states the TOP's Operating Plans(s) should include processes to prepare for and mitigate Emergencies. Reliability impacts of cold weather conditions and any other extreme weather conditions are not a process, but rather a type of Emergency that the

TOP must have a plan(s) to address. This addition will clarify that that a process should be in place to address cold weather and other extreme conditions.

EOP-011-2, R7: Just as TOPs and RCs (in R1 and R2) “shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analysis, Real-time monitoring, and Real-time Assessments”, GOs should be required to provide the information that is requested by the TOP and RC.

We also recommend the SDT consider the below modifications to R7 (some of which are from ISOs that have such mitigation/requirements in-place due to previous experience), including a recommendation to provide a clear, measurable objective for Part 7.1. Without a clear, measurable objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit.

R7. Each Generator Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) for its solely and jointly owned generator Facility(ies). The extreme weather preparedness plan(s) shall be reviewed, tested, and applicable portions shall be implemented prior to each applicable season, and shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

7.1. freeze protection measures based on unique factors such as geographical location and plant configuration are adequate to operate through extreme temperatures and weather that are consistent with the geography and meteorology for the location of the unit(s)

7.1.1 provisions to include the impact of precipitation (e.g. sleet, snowpack)

7.2 Annual maintenance and inspection of freeze protection measures; and

7.3. minimum design temperature or minimum demonstrated historical performance during cold weather in the previous 5 years or maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Such Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in extreme cold weather; and

7.3.2. Generating unit(s) operating limitations in extreme precipitation events; and

7.3.3. Generating unit(s):

7.3.3.1. minimum and maximum design temperature; or

7.3.3.2. minimum demonstrated historical performance during extreme weather;

R8. Each Generator Operator shall develop, maintain, and implement one or more cold weather preparedness plan(s) for the generating Facility(ies) it operates. The cold weather preparedness plan(s) shall include the following at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

8.1. Awareness training on the detailed roles and responsibilities of site personnel contained in the cold weather preparedness plan, including notifications to BAs/RCs/TOPs regarding generator availability and operating limitations during extreme weather.

The IRC SRC recommends the SDT consider adding frequency and timing for the training requirement, such as “Annual” and “within 60 days of the start of the season.”

The IRC SRC questions adding provisions for the reliability impacts of hot weather as a separate numbered item. Cold weather is being addressed in this Standard update, but hot weather considerations as well as impacts of extreme precipitation events are similarly important to monitor and understand. Implementing cold weather requirements now and waiting for a hot weather event to implement hot weather requirements may be a mistake.

Likes	0
Dislikes	0

Response

Thank you for your comments and the SDT appreciates your support. As clarification, the NERC Standards only apply to BES generation. Please see the updated modifications to EOP-011 incorporating some of your comments regarding language modifying existing language and a new requirement R8 to address awareness training. The SDT considered defining the training requirement and decided to allow the Generator Owner and Generator Operator to determine the frequency and timing for the training. The SDT appreciates your comments regarding hot weather and the standards reflect the scope of the SAR. Issues outside the SAR’s scope are unable to be addressed by the SDT.

Jamie Johnson - California ISO - 2

Answer	Yes
Document Name	
Comment	
CAISO agrees with comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to the ISO/RTO Counsel Standards Review Committee.	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
OPG concurs with the NPCC Regional Standards Committee's comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to NPCC Regional Standards Committee.	
Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis	
Answer	Yes
Document Name	
Comment	

In addition to supporting the IRC SRC comments, PJM requests consideration of the following **modifications to the proposed requirements**:

R7. Each Generation Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) **that are documented with supporting source data** for its solely and jointly owned generator Facility(ies). The extreme weather preparedness plan(s) shall be reviewed, tested, and applicable portions shall be implemented prior to each applicable season, and shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]

R7.1 freeze protection measures based on unique factors such as geographical location and plant configuration are adequate to operate through extreme temperatures and weather that are consistent with the geography and meteorology for the location of the unit(s) **as validated by their host RC.**

R7.3 Generating unit(s) cold weather data to include: minimum design temperature for new units or units with limited historical performance during cold weather; and demonstrated historical performance during cold weather for units with historical cold weather performance. (To replace: Minimum design temperature; or minimum demonstrated historical performance during cold weather in the previous 5 years.)

Requesting the Standard Drafting Team to add definitions in the standard to define cold weather (recommend using NOAA data) and extreme weather conditions.

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the SDT's response to IRC SRC. The SDT determined that an industry-wide definition could not be established since geographic areas have their own interpretation. Also, since extreme weather was a term previously used in the existing EOP-011, the SDT determined that it would not be appropriate to develop a definition.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer

Yes

Document Name

Comment

ERCOT agrees with the placement of cold weather preparedness plan requirements within EOP-011 and supports a requirement that Generator Owners (GO) develop, maintain, and implement cold weather preparedness plans for generating units. ERCOT supports the proposed requirement to mandate weatherization plans as an important first step in ensuring reliability. However, an effective Reliability Standard would need to include clear and enforceable metrics, which the plan must be designed to achieve. ERCOT notes that generators in the ERCOT Region have been required to have weatherization plans for many years. It is apparent based on the February 2021 extreme cold weather event that having a plan may not be sufficient by itself to ensure reliability. ERCOT would support a subsequent Reliability Standard project in order to specify these clear and enforceable metrics.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT appreciates your support of this effort and is aware that subsequent standard(s) may be required to address other concerns.

Aaron Staley - Orlando Utilities Commission - 1

Answer

Yes

Document Name

Comment

Please clarify if EOP-011 R7 is an effort to change the cold weather design of units, for example requiring a unit not designed to operate below freezing to now operate below freezing. Or if its just requiring the operator to basiclly clarify the units capabilities and maintain that capability.

Please remove the five year as a rigid requirement in R7 part 7.3.2.2, simply stating historical performance over cold weather provides for a more complete response from the Generator Owners on the capability of their equipment. It could be stated as "for example over the last five years". Alternately the SDT could allow for other time windows as long as the Generator Owner had a technical rationale for the different time window.

Likes	0
Dislikes	0
Response	
Thank you for your comments. The standard is requiring the Generator Owner to confirm the generating unit's capability during cold weather. The SDT removed 5 years from R7 Part 7.3.2.2.	
Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Tyson Archie - Platte River Power Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes	1
Dislikes	0
Platte River Power Authority, 3, Kiess Wade	
Response	

Dan Roethemeyer - Vistra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	

Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3

Answer Yes

Document Name

Comment

Likes 0	
Dislikes 0	
Response	
James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Anthony Jablonski - ReliabilityFirst - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Teresa Cantwell - Lower Colorado River Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
W. Dwayne Preston - Austin Energy - 3	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jun Hua - Austin Energy - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	
Comment	
<p>Texas RE appreciates the Standard Drafting Team’s (SDT) initial efforts to enhance the NERC Reliability Standards to ensure that Generator Owners (GOs), Balancing Authorities (BAs) and Transmission Operators (TOPs) take adequate steps to prepare for cold weather conditions. Texas RE notes that the 2019 FERC and NERC Staff Report on the South Central United States Cold Weather BES Event of January 18, 2018 (“2019 Cold Weather Event Report”) specifically commented that “[a] mandatory Reliability Standard would require [GOs] to properly prepare for extreme cold weather, and would help [Reliability Coordinators (RCs)] and BAs identify units which may not be able to perform during an extreme cold weather event.” (2019 Cold Weather Report, at 89). Texas RE supports the SDT’s efforts to implement the mandatory Reliability Standard described in the 2019 Cold Weather Report to require, among other things, GOs to develop, maintain, and implement cold weather preparedness plans as a new Requirement R7 in the existing EOP-011 Standard.</p> <p>While Texas RE believes the proposed EOP-011-2 Requirement R7 reflects the general cold weather preparedness recommendations set forth in the 2019 Cold Weather Report, Texas RE believes that the SDT should consider incorporating additional specificity from the report in developing more specific, measurable requirements. In particular, Texas RE recommends incorporating more specific elements identified in the 2019 Cold Weather Report to establish (1) clear timeframes for implementing cold weather preparedness plans, (2) minimum, measurable requirements for GO cold weather preparedness plans, and (3) more specific criteria around minimum maintenance activities and their periodicity. Texas RE further recommends including provisions for RCs to review GO cold weather preparedness plans, in a manner consistent with the RC reviewing BA and TOP data for cold weather per IRO-010 and TOP-003, to ensure adequate cold weather preparedness measures are in place.</p> <p>Texas RE will first set forth its comments on these items in Requirement R7, as well as some general suggestions regarding other EOP-011 revisions. Texas RE will then provide some general comments regarding potential revisions to proposed EOP-011 Requirements R1 and</p>	

R2 to better implement the new Requirement R7 provisions in connection with TOPs and BAs, as well as additional revisions to the EOP-011 attachments.

Timeframes for Implementing Cold Weather Preparedness Plans (Requirement R7)

As part of the “Generator Sound Practices” section in the 2019 Cold Weather Report, NERC and FERC staff specifically recommended GOs complete “freeze protection-related maintenance *prior to winter weather.*” (Cold Weather Report, at p. 101). Consistent with this recommendation, Texas RE believes the SDT should specify that GOs should implement one or more cold weather preparedness plans “*seasonally prior to the expected onset of winter conditions, and review annually.*” The will clarify that timely preparation and implementation of winter weather protections should occur in advance of potential cold weather events, including actions that could require longer lead-times.

Minimal Measurable Requirements (Requirement R7, Part 7.1)

While the requirement is written to be flexible, Texas RE recommends creating measurable requirements for implementing freeze protection measures and technologies so there are clear criteria for the GO, as well as to promote consistent implementation of protective measures. For example, the SDT could consider incorporating the 2019 Cold Weather Report recommendation to specifically require continuous monitoring of heat tracing systems though displays and indicator lights as a measurable, minimal element of a GO cold weather preparedness plan.

With all such requirements, the SDT could also consider preserving generator flexibility by requiring either adoption of the minimal measures or a documented justification for why such measures were not adopted as part of the cold weather preparedness plan. However, if justifying specific freeze protection measures, generators should consider more than their geographic location and plant configuration. Rather, Texas RE suggests that generators should also be required to consider local historical weather extremes and critical components that, if affected by cold conditions, would result in startup failure, derate, or tripping of the unit or units as part of the generator’s analysis of the measures necessary to implement an adequate cold weather preparedness plan, including the possible justifications for not taking certain freeze protection measures.

Specific Criteria and Periodicity for Maintenance and Inspection Activities (Requirement 7, Part 7.2)

Texas RE agrees with the SDT there should be a requirement for GOs to perform maintenance and inspection activities regarding freeze protection measures. The 2019 Cold Weather Report specifically identified “[p]erforming periodic adequate maintenance and inspection of freeze protection elements (e.g., generating units’ heat tracing equipment and thermal insulation)” as a key element to ensure GOs

adequately prepare for cold weather conditions. To that end, Texas RE believes that specifically defining both minimum maintenance and inspection activities, as well as maximum maintenance and inspection intervals (in a similar format to the existing protection system maintenance and testing requirements in PRC-005) is important. By way of example, the 2019 Cold Weather Report specifically recommends GOs adopt “regular, periodic operational checks of heat tracing circuits.” (2019 Cold Weather Report, at 101). Texas RE recommends that the SDT specify minimal activities associated with such operational checks and define a regular, periodic maintenance schedule to ensure consistency across generators. In a similar vein, the SDT should consider including criteria for maintenance activities, such as performing maintenance on generating units’ heat tracing equipment and thermal insulation to properly test equipment functionality. Texas RE generally recommends that maintenance activities be performed at least on an annual basis.

Additional Recommended Revisions

In proposed EOP-011-2 Requirement 7, Part 7.1, Texas RE suggests replacing the term “unique” with the term “site-specific.” The term “site-specific” better describes geographical and plant configuration factors specific to a generation unit.

In proposed EOP-011-2 Requirement 7, Part 7.3.1, the propose language could possibly be read to be limited to low temperatures. Texas RE recommends specifying broader attributes of extreme cold weather events, such as freezing precipitation, which can have independent impacts. Texas RE suggests revising the language in Part 7.3.1 as follows: “Generating unit(s) operating limitations in cold weather due to temperature, icing, snow loads, or other factors; and”.

In proposed EOP-011-2 Requirement 7, Part 7.3.2, Texas RE recommends more specificity to account for other factors such as ice build-up and snow load, which could have significant, detrimental reliability impacts that are independent from freezing temperature, especially for renewables. Texas RE recommends revising Part 7.3.2 as follows: “Minimum design temperature specifications applicable for winter conditions such as temperature, icing, or snow relevant to the facility.”

Texas RE is concerned Part 7.3.3.2 allows the GO to use minimum demonstrated historical performance during cold weather solely from the previous five years of cold weather data. This is a short time-frame for historical performance and is unlikely to capture extreme events that occur much less frequently than every five years. By way of example, such a standard would have excluded 2011 generator performance data from 2021 generator cold weather preparedness plans in the Texas RE footprint, meaning that such information would not have been considered in preparations for the most recent severe cold weather event. Texas RE recommends GOs be required to obtain more detailed data related to generator performance in order to accurately identify temperatures at which the generator would

encounter any operating limitations identified, including use of the most extreme weather event experienced at the facility’s geographic location as an outer bound.

Texas RE also recommends clarifying what the performance is during cold weather. Texas RE inquires how the TOP and RC will interpret this performance to perform the OPA, Real-time monitoring, and Real-time Assessments.

Requirement 7, Part 7.4

Texas RE agrees with the requirement for site personnel to have training. Texas RE recommends adding a more specific part to document the roles and responsibilities of the personnel. Additionally, there should be a periodicity for personnel to receive training on the cold weather preparedness plan as well as a provision that training be conducted prior to the winter season.

Requirements for TOPs and BAs to take specific actions (Requirements R1 and R2)

Texas RE recommends including specific actions that Transmission Operators (TOPs) in Requirement R1 and Balancing Authorities (BAs) in Requirement R2 should take as part of the implementation of the Operating Plans to mitigate operating Emergencies in their respective areas. As it is currently written, only inclusions of reliability impact are required, not actions themselves, such as notification, cancellation or recall, reconfiguration, redispatch.

Attachments

Attachment 1

In section A. 2, Texas RE recommends stating that RCs will notify GOs of EEAs so as to be consistent with the standard language. The following language could be added: “For an EEA resulting from cold weather, the Reliability Coordinator shall also notify Generator Owners within its Reliability Coordinator Area.”

In section 3.4, Texas RE recommends revising 0.1 to the following: “The Reliability Coordinator shall notify all other Reliability Coordinators via the RCIS of the termination. The Reliability Coordinator shall also notify the neighboring Generator Owners, Balancing Authorities and Transmission Operators within its Reliability Coordinator Area.”

The SDT could also consider changing the numbering as it does not look correct.

Likes 0

Dislikes	0
Response	
<p>Thank you for your comments. The SDT has taken your recommendations into consideration when revising EOP-011. The SDT declines to add a requirement for the RC to review the cold weather plans due to such issues as resource availability and lack of expertise. In addition, the SDT appreciates your references to the sound practices outlined in the FERC Report. Consistent with the FERC’s dicta that the review team did not make a determination which practices are considered “best” nor include such proscriptions in the formal recommendations, the SDT declines to add proscriptive practices to the requirements, but would defer to the Generator Owner to determine which practices to implement consistent with the official NERC Reliability Guideline on generator unit winter readiness and the sound practices outlined in the FERC report. The SDT considered defining the training requirement and decided to allow the Generator Owner and Generator Operator to determine the frequency and timing for the training. Consistent with the FERC Report, the SAR dictates the parameters of how the RC, BA and TOP are to utilize the data but does not state proscriptive actions the RC, BA or TOP must take, and therefore the SDT believes that suggestion is out of scope for this project.</p>	
Don Stahl - Black Hills Corporation - 3	
Answer	
Document Name	
Comment	
comments submitted	
Likes	0
Dislikes	0
Response	
Neil Shockey - Edison International - Southern California Edison Company - 5	
Answer	
Document Name	

Comment	
SCE supports EEI's comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to EEI.	
Kenya Streater - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute".	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to EEI.	

2. The SDT placed the Reliability Coordinator data specification requirements within IRO-010. Do you agree with this modified requirement placement in the IRO-010 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

ERCOT disagrees that the RC should be required to consider generator design specifications (such as a manufacturer's minimum ambient operating temperature) or historical cold-weather performance information in developing its OPA or RTA. Instead, it would be more effective if the GOP were required to provide an accurate indication of its actual or anticipated capability and availability based on expected or real-time weather conditions and known limitations. As the entity solely responsible for the operation of the generator, the GOP is in a much better position than the RC (or the BA or TOP, for that matter) to understand and predict the impacts of different cold weather scenarios on that generator. Therefore, if the SDT proceeds with revisions to IRO-010, ERCOT suggests revising Requirement R1.3 to read as follows:

1.3 Provisions for notification of generating unit capability and availability that reflects any operating limitations or unit-specific design specifications during actual and anticipated cold weather conditions.

However, ERCOT believes that it may be simpler and clearer to explicitly assign the GOP the responsibility to communicate cold weather impacts on generator capability and availability. This could be achieved by adding such a requirement in a new R8 to EOP-011 (see response to Question 8 below). However, if the SDT proceeds with a data specification requirement, that requirement would more appropriately be placed on the BA and TOP, rather than the RC (see same response).

Likes 0

Dislikes 0

Response

Thank you for your comments. Operating limitations related to capability and availability have been added to the proposed revised standards where appropriate.

Gladys DeLaO - CPS Energy - 1

Answer No

Document Name

Comment

The new IRO-010 redline requirement (1.3) is really just a subset of the data required in 1.1; it doesn't cover improvement cover the 2021 Texas event due to gas shortages or how a generator would establish cold weather limits for a gas unit (due to availability of gas supply).

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT believes that fuel supply and inventory concerns under 1.3.1.2; and fuel switching capabilities under 1.3.1.3 should address any issues encountered with shortages of any type of fossil fuel that would impact an operating limitation.

Glenn Pressler - CPS Energy - 3

Answer No

Document Name

Comment

The proposed new IRO-010 redline requirement (1.3) is really just a subset of the data required in 1.1; it doesn't cover improvement or cover the 2021 Texas event due to gas shortages or how a generator would establish cold weather limits for a gas unit, due to unavailability of gas supply, for example.

Likes 0

Dislikes 0

Response	
Thank you for your comments. The SDT believes that fuel supply and inventory concerns under 1.3.1.2; and fuel switching capabilities under 1.3.1.3 should address any issues encountered with shortages of any type of fossil fuel that would impact an operating limitation.	
Erin Green - Western Area Power Administration - 1,6	
Answer	No
Document Name	
Comment	
Support comments by Western Area Power Administration, Sean Erickson, Segment 1.	
Likes	0
Dislikes	0
Response	
Please see the SDT's responses to WAPA for Sean Erickson.	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
The proposed Requirement R1.3 references "unit-specific design specification", which is a very broad term that seems better suited to facility ratings/design. Secondly, there needs to be added context on what constitutes "minimal historical performance". This can be captured in Facilities ratings/design standards including dependencies on temperature or other weather parameters for specific "emergency" conditions, and how these may affect a generating unit's operating limitations.	

The term “cold weather” can have varied interpretations throughout the continent, so a more concise term and/or definition that would also include which weather elements may be subject to this (e.g. cold weather may imply this is just for ice/snow) would be helpful.

BC Hydro suggest that the IRO-010 language be kept to the specific information, such as the designed operating temperature range of a unit that would be necessary for performing Operations Planning Analyses.

Likes 0

Dislikes 0

Response

Thank you for your comments. Any reference to “specific design specification” has been removed from the proposed standard revision. The Implementation Guide will provide more clarification related to “minimal historical performance”.

The SDT determined during the development of the SAR, that since there are different interpretations of “cold weather” across the ERO due to geographic location and climate, it would not be feasible to define a term that would be acceptable to everyone. Each entity should use their own weather resource(s) and operating experience for their generating facilities to establish the appropriate cold weather conditions.

The proposed revised standard allows the Reliability Coordinator the flexibility to use minimum design temperature or minimum historical operating temperature when performing their OPA.

Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5

Answer

No

Document Name

Comment

There is no provision in any NERC Standard for the Reliability Coordinator to incorporate into any of their analysis the unit specific design specifications or performance during cold weather, being required to be collected by the revision to IRO-010. The existing language already provides for the collection of "...data and information necessary needed by the Reliability Coordinator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments..." This would include any generator cold or extreme weather limitations. Why would you require an entity to request data that they are not required to use?

Likes 0

Dislikes	0
Response	
Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold or extreme weather limitations were not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions.	
Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1	
Answer	No
Document Name	
Comment	
MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.	
Likes	0
Dislikes	0
Response	
See responses to MRO NSRF.	
George Brown - Acciona Energy North America - 5	
Answer	No
Document Name	
Comment	
Acciona Energy USA Global, LLC (Acciona) supports the Midwest Reliability Organization NERC Standards Review Forum's (MRO NSRF) comments.	
Likes	0

Dislikes	0
Response	
See responses to MRO NSRF.	
Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations	
Answer	No
Document Name	
Comment	
All data required by the RC should be the same data points as required for the BA and TOP. This will provide consistency across these three Functional Entities. ACES recommends that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in IRO-010.	
Likes	0
Dislikes	0
Response	
Thank you for your comments. IRO-010 and TOP-003 have been revised to include the same data points. Part 7.3 and its sub-components remain in EOP-011 to ensure that the GO is addressing those areas under the data requests of the RC, BA and TOP.	
Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE	
Answer	No
Document Name	
Comment	
There is no provision in any NERC Standard for the RC to incorporate the unit specific design specifications or minimum historical performance as well as expected BES generating unit operation limitations during cold weather into any of their analysis, which is currently being proposed for an addition to IRO-010. The existing language in IRO-010 R1.1 already provides for the collection of	

necessary data (“A list of data and information needed by the Reliability Coordinator to support its Operational Planning Analyses, Real-time monitoring, and Realtime Assessment.....”). We believe this data would include any generator cold or extreme weather limitations. In addition, IRO-008 should be revised as well so that the data collected by the RC is utilized in the RC’s Operational Planning Analysis (OPA) and Real-time Assessment (RTA) for anticipated cold weather conditions. By incorporating the GO cold weather parameters into their OPA and RTA, the RC will be able to understand limitations in specific areas of its region and to develop more effective Operating Plans to address those upcoming system conditions.

Likes	0
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Dislikes	0
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Response

Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold or extreme weather limitations were not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010 and TOP-003. IRO-008 ensures that the RC performs the appropriate analysis based on their data requests as specified in IRO-010.

Wayne Guttormson - SaskPower - 1

Answer	No
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Document Name	
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Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.

Likes	0
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Dislikes	0
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Response

Please see the SDT’s response to MRO-NSRF.

Larry Heckert - Alliant Energy Corporation Services, Inc. - 4

Answer	No
Document Name	
Comment	
Alliant Energy supports the comments submitted by the MRO NSRF.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to MRO-NSRF.	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
This requirement implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have a cold weather preparedness plan. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems but it is not officially filed. We currently do not track training on the roles and responsibilities of site personnel.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comments. The proposed implementation period has been increased to 18 months.	

Dennis Sismaet - Northern California Power Agency - 6	
Answer	No
Document Name	
Comment	
<p>Existing standards are not broken, they either are not being used, or enforced.</p> <p>The existing IRO-010/TOP-003 Standards already allows RCs and TOPs the opportunity to obtain said data via their data specification requests to GO/GOPS, if they intend on using said data.</p> <p>Forcing a RC or TOP to ask for data they don't need, nor have any accountability to use, is not efficient use of customer's dollars, and does not increase reliability. As proposed standard modifications are a mere administrative burden, that costs everyone with no measurable reliability benefit.</p> <p>As TAPS mentioned in prior SAR Comments. The standards are written broadly by design, and thus include data specific to cold weather issues, as well as everything else that each RC, BA, or TOP needs to perform its operational functions.</p> <p>Nor is there any indication in NERC's enforcement data that failure to respond to data specifications is a widespread problem. If RCs, BAs, and TOPs are, in fact, having trouble getting the information they need, that is a CMEP problem, not a standards problem, since, as noted above, IRO-010-2 and TOP-003-3 already require each RC, BA, and TOP to request, without limitation, "the data necessary for it to perform" its operational functions, and require the entities receiving the data specifications to provide all such data.</p> <p>As NERC said in its petition for approval of (among others) IRO-010-1a, which used the same top-down approach as IRO-010-2 and TOP-003-3, "[t]he requirements in the standard specify a formal request as the method for the Reliability Coordinator to explicitly identify the data and information it needs for reliability; and require the entities with the data to provide it as requested. This method is sound because the Reliability Coordinator is the only entity that knows what data it needs to properly perform its reliability tasks, and the most efficient format for accepting this data." Docket No. RM10-15, at 35 (Dec. 31, 2009) (emphasis added). The alternative approach-listing each type of data that must be provided-will unavoidably be both under- and over-inclusive, since in addition to varying from one entity to another, data needs change over time as new technologies and risks emerge.</p>	
Likes	0

Dislikes	0
Response	
<p>Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold or extreme weather-related data was not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010 and TOP-003.</p>	
<p>Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1</p>	
Answer	No
Document Name	
Comment	
<p>All data required by the RC should be the same data points as required for the BA and TOP. This will provide consistency across these three Functional Entities. ACES recommends that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in IRO-010.</p> <p>AEPC is signing on to ACES comments as well.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. IRO-010 and TOP-003 have been revised to include the same data points. Part 7.3 and its sub-components remain in EOP-011 to ensure that the GO is addressing those areas under the data requests of the RC, BA and TOP. Please see the SDT's response to ACES.</p>	
<p>Dania Colon - Orlando Utilities Commission - 5</p>	
Answer	No
Document Name	
Comment	

IRO-010 already permits the RC to ask for this data and EOP-011 requires the RC to plan for this event. I don't believe it's necessary to add a redundant requirement to the obligation the RC has in EOP-011 within the IRO-010 standard. R1.3 is only required for cold weather conditions. It doesn't include extreme weather conditions as specified in EOP-011 and should also be included for consistency.

Likes 0

Dislikes 0

Response

Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold weather-related data was not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010. Besides cold weather, it is understood that extreme weather conditions of EOP-011 may include heat, wind, heavy rain, etc., which is outside the scope and intentions of the SAR.

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer

No

Document Name

Comment

All data required by the RC should be the same data points as required for the BA and TOP. This will provide consistency across these three Functional Entities. Recommend that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in IRO-010 (with modifications, see below) these are data points the RC should want to ask for to ensure they know the capabilities of BES generators in their system during cold weather conditions.

7.3.1 requires "operating limitations" and if those limitations are unknown, then 7.3.2 gives the GO other avenues to gather generator's cold weather data. At the end of 7.3.1 there is an "AND" this should be changed to an "OR". A GO may have data specified in 7.3.1 and if don't then they can use 7.3.2 to obtain the generator's cold weather data via different methods.

Likes 0

Dislikes 0

Response	
Thank you for your comments. IRO-010 and TOP-003 have been revised to include the same data points. Part 7.3.1 has been revised to address your concerns.	
Michael Brytowski - Great River Energy - 3	
Answer	No
Document Name	
Comment	
GRE supports the comments of the NSRF	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to MRO NSRF.	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
Existing standards are not broken, they either are not being used, or enforced.	
The existing IRO-010/TOP-003 Standards already allows RCs and TOPs the opportunity to obtain said data via their data specification requests to GO/GOPS, if they intend on using said data.	

Forcing a RC or TOP to ask for data they don't need, nor have any accountability to use, is not efficient use of customer's dollars, and does not increase reliability. As proposed standard modifications are a mere administrative burden, that costs everyone with no measurable reliability benefit.

As TAPS mentioned in prior SAR Comments. The standards are written broadly by design, and thus include data specific to cold weather issues, as well as everything else that each RC, BA, or TOP needs to perform its operational functions.

Nor is there any indication in NERC's enforcement data that failure to respond to data specifications is a widespread problem. If RCs, BAs, and TOPs are, in fact, having trouble getting the information they need, that is a CMEP problem, not a standards problem, since, as noted above, IRO-010-2 and TOP-003-3 already require each RC, BA, and TOP to request, without limitation, "the data necessary for it to perform" its operational functions, and require the entities receiving the data specifications to provide all such data.

As NERC said in its petition for approval of (among others) IRO-010-1a, which used the same top-down approach as IRO-010-2 and TOP-003-3, "[t]he requirements in the standard specify a formal request as the method for the Reliability Coordinator to explicitly identify the data and information it needs for reliability; and require the entities with the data to provide it as requested. This method is sound because the Reliability Coordinator is the only entity that knows what data it needs to properly perform its reliability tasks, and the most efficient format for accepting this data." Docket No. RM10-15, at 35 (Dec. 31, 2009) (emphasis added). The alternative approach-listing each type of data that must be provided-will unavoidably be both under- and over-inclusive, since in addition to varying from one entity to another, data needs change over time as new technologies and risks emerge.

Likes	0
Dislikes	0

Response

Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold weather-related data was not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010 and TOP-003.

Richard Jackson - U.S. Bureau of Reclamation - 1

Answer	No
Document Name	

Comment

Requirement R1.3 states “unit specific design specifications.” It is assumed that this refers to cold weather design, but it is not clear. Hydroelectric generators are secured inside buildings and do not have these specifications. Reclamation recommends excluding hydroelectric generators from this requirement as they rely on water operations, for which cold weather considerations are already accounted by local operations and maintenance procedures.

Likes 0

Dislikes 0

Response

Thank you for your comments. “Specific design specifications” has been removed from Part 1.3. Each hydroelectric generating facility will need to determine the specific type and amount of cold weather preparation that is appropriate for the particular location, configuration and weather conditions.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer

No

Document Name

Comment

This change is made redundant by the proposed change in TOP-003 and existing coordination required between the RC, BA, and TOP in IRO-008-2 R2. Since the BAs and TOPs will be required to include cold weather considerations as part of their data specifications and into their Operational Planning Analyses, the RC will have to consider the potential cold weather impacts of the generators that have been accounted for in the Operating Plans of the respective BAs and TOPs.

Likes 0

Dislikes 0

Response

Thank you for your comments. The proposed changes to IRO-010 and TOP-003 will require the RC, BA and TOP to consider the same data specifications related to cold weather. IRO-008-2 ensures that the RC performs the required analysis based on the data requested in IRO-010.

Glen Farmer - Avista - Avista Corporation - 5

Answer No

Document Name

Comment

This requirements implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have provisions for evaluating future weather events and acting on them. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems, but it is not officially filed.

Likes 0

Dislikes 0

Response

Thank you for your comments. The proposed implementation period has been increased to 18 months.

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to Reclamation's comments.

Marty Hostler - Northern California Power Agency - 5

Answer No

Document Name

Comment

Existing standards are not broken, they either are not being used, or enforced.

The existing IRO-010/TOP-003 Standards already allows RCs and TOPs the opportunity to obtain said data via their data specification requests to GO/GOPS, if they intend on using said data.

Forcing a RC or TOP to ask for data they don't need, nor have any accountability to use, is not efficient use of customer's dollars, and does not increase reliability. As proposed standard modifications are a mere administrative burden, that costs everyone with no measurable reliability benefit.

As TAPS mentioned in prior SAR Comments. The standards are written broadly by design, and thus include data specific to cold weather issues, as well as everything else that each RC, BA, or TOP needs to perform its operational functions.

Nor is there any indication in NERC's enforcement data that failure to respond to data specifications is a widespread problem. If RCs, BAs, and TOPs are, in fact, having trouble getting the information they need, that is a CMEP problem, not a standards problem, since, as noted above, IRO-010-2 and TOP-003-3 already require each RC, BA, and TOP to request, without limitation, "the data necessary for it to perform" its operational functions, and require the entities receiving the data specifications to provide all such data.

As NERC said in its petition for approval of (among others) IRO-010-1a, which used the same top-down approach as IRO-010-2 and TOP-003-3, "[t]he requirements in the standard specify a formal request as the method for the Reliability Coordinator to explicitly identify the data and information it needs for reliability; and require the entities with the data to provide it as requested. This method is sound because the Reliability Coordinator is the only entity that knows what data it needs to properly perform its reliability tasks, and the most efficient format for accepting this data." Docket No. RM10-15, at 35 (Dec. 31, 2009) (emphasis added). The alternative approach-listing

each type of data that must be provided-will unavoidably be both under- and over-inclusive, since in addition to varying from one entity to another, data needs change over time as new technologies and risks emerge.

Likes 0

Dislikes 0

Response

Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold weather-related data was not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010 and TOP-003.

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather

Answer

No

Document Name

Comment

R1 of IRO-010 is about creating data specification. An RC creating a data specification and then subsequently receiving the data does not ensure that expected upcoming cold weather conditions will be taken into consideration in an Operational Planning Analysis (OPA). An optimal outcome of a standard requirement would be that expected severe cold weather conditions are known/anticipated in an OPA timeframe and then appropriate Operating Plans are developed to address those upcoming system conditions. A better placement of cold weather preparedness requirement would be in in IRO-008-2 so that expected upcoming cold weather conditions are adequately anticipated in the OPAs and Operating Plans are accordingly developed. Similarly, a requirement for BAs to evaluate their upcoming cold weather conditions could also be placed in TOP-002. Such requirements would in of themselves prompt RCs to request appropriate data (such as generation unit temperature limitations) that are needed for appropriately performing their OPAs. An alternate option could be to add a requirement in the OPA definition to include upcoming cold weather impacts in the OPA as inputs to the OPA.

The second comment is more specific about the data items being requested in 1.3. First of all the requirement says ‘Provisions for notification of BES generating unit-specific specification....’ which is a very broad requirement because a generating unit’s design specification is not a single page item. There are several binders and hundreds of design drawings that are part of a generating unit’s design specification. An RC requesting BES generating unit-specific design specification may be compliant with the requirement but may not receive the actual piece of relevant information needed for cold weather analysis. A more meaningful quantity to request as part of

data specification (which can then also be applied in an OPA) is the designed operating temperature range for a unit. For example, if the designed minimum operating temperature limit for a unit is 25o F and if upcoming weather conditions are going to be 20o F, then it could be considered in an OPA that a particular unit may not be able to operate (or even be started to operate) in the upcoming weather conditions and operating entities can plan accordingly.

Likes 0

Dislikes 0

Response

Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold or extreme weather limitations were not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010 and TOP-003. IRO-008 ensures that the RC performs the appropriate analysis based on their data requests as specified in IRO-010.

Part 1.3 has been revised to address your concerns.

Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6

Answer

No

Document Name

Comment

NIPSCO TOP and its RC (MISO) already include GO data in their data specifications for TOP-003 and IRO-010 respectively. It is not clear what additional information is being requested in the proposed R1.3 in both of these proposed standards and this should be clarified.

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1	
Answer	No
Document Name	
Comment	
<p>For those generators that are located in cold climates and operate regularly in freezing weather, this standard will be a unnecessary administrative series of tasks. The Cold Weather Preparedness should be limited to those locations where cold weather operations is not frequent. Despite the recent problems in Texas, Generations in Northern climates continues to be reliable. Perhaps the standard needs to put the burden on Planning Coordinators to identify generators that are of high risk, and require Cold Weather preparedness from them, excluding others.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. For those generators located in cold climates and regularly operating in freezing weather, it is assumed that some type of cold weather preparedness process exists. In these cases, the entity needs to ensure that their present process aligns with the conditions of the revised standard. It is understood that the extent and complexity of cold weather preparedness plans will be driven by geographic location and climate. Generators that may pose a high risk during cold weather conditions should normally be identified by the Balancing Authority where their Operating Plans will be adjusted to consider their capability and available during this type of weather condition.</p>	
Dylan Sontag - Silicon Ranch Corporation - 1 - SERC	
Answer	No
Document Name	
Comment	
<p>There are no annual cold weather preparations for our solar facilities that need to be performed and our facilities are not limited in any way during cold weather.</p>	

Likes	0
Dislikes	0
Response	
Thank you for your comments. Agree that solar facilities may have little to no preparation related to cold weather. That will need to be determined by each solar facility.	
Kristina Marriott - First Solar, Inc. - 5	
Answer	No
Document Name	
Comment	
The industry may benefit from having all cold weather requirements located in a singled EOP Standard. For entities with multiple types of registered functions, searching for cold weather requirements in multiple different standards may be tedious and confusing.	
Likes	0
Dislikes	0
Response	
Thank you for your comments. The SDT considered industry comments related to addressing cold weather preparedness by revising existing standards instead of developing a new standard.	
Scott McGough - Georgia System Operations Corporation - 3	
Answer	No
Document Name	2019-06_Cold_Weather_Comments_FINAL_GSOC_SBFCB03-11-21.docx
Comment New requirement R1.3 feels overly specific and redundant of R1.1. It singles out activities surrounding cold weather, but does not address other extreme weather conditions that could affect grid conditions, e.g., extreme heat, humidity, and rain/wind events. GSOC respectively suggests that the entire sub-requirement could be more effective as an example listed under R1.1.	

Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SAR was required to only address cold weather conditions based on the findings and recommendations of the 2018 South Central Cold Weather Event. Other extreme weather conditions was already approved to be a part of the existing IRO-010 and TOP-003 standards and was not intended to be addressed by the SDT.</p>	
<p>Aaron Staley - Orlando Utilities Commission - 1</p>	
Answer	Yes
Document Name	
Comment	
<p>I don't believe it is necessary to include the language in IRO-010. EOP-011 requires the TOP to plan for cold weather and for the RC to review those plans. IRO-010 is to ensure the RC can receive the data it needs and IRO-010 R1 allows the RC to ask for data in addition to the existing sub-parts of R1. IRO-010s purpose does not include prescribing to the RC what data they need, but ensuring they have access to the data they determine they need.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. Due to the outcome of the 2018 South Central Cold Weather event, it appears that cold or extreme weather limitations were not requested or effectively utilized in OPAs, RT monitoring and/or RT Assessments; thus the need to specify these type of items in the proposed standard revisions of IRO-010.</p>	
<p>Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis</p>	
Answer	Yes
Document Name	
Comment	

In addition to supporting the IRC SRC comments, PJM requests consideration of the following:

For R1.3, requesting clarifying language to allow RC flexibility in data specifications for [Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, and expected BES generating unit operation limitations during local forecasted cold weather.]

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Jamie Johnson - California ISO - 2

Answer

Yes

Document Name

Comment

CAISO supports the inclusion of the data specification requirements in IRO-010; however, recommends the SDT modify the text of the requirement to remove “Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather”. This does not seem necessary for OPA/RTA/RT monitoring and seems more appropriate for inclusion in TOP-003.

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)

Answer

Yes

Document Name

Comment

The IRC SRC supports the inclusion of the data specification requirements in IRO-010; however, recommends the SDT modify the text of the requirement to allow for entity flexibility in specifying the data provided to ensure that the data received is actionable for use in Reliability Coordinator models.

1.3. Provisions for notification of operating limitations, capability and availability for generating Facility(ies) during current and projected cold weather conditions.

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey

Answer

Yes

Document Name

Comment

Yes, PG&E generally agrees with the modifications to IRO-010 as proposed.

Likes 0

Dislikes 0

Response

Thank you for your support.

Bobbi Welch - Midcontinent ISO, Inc. - 2

Answer

Yes

Document Name	
Comment	
MISO supports the IRC SRC comments	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to IRC SRC.	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon supports placing the Reliability Coordinator (RC) data specification requirements within IRO-010.	
On Behalf of Exelon, Segments: 1, 3, 5, 6	
Likes 0	
Dislikes 0	
Response	
The SDT appreciates your support of this effort.	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	

This would align with the current relationship between IRO-010 and TOP-003, and that the RC spec remains in IRO-010, and the TOP and BA specs in TOP-003 would align with the RC spec.

Likes 0

Dislikes 0

Response

The SDT appreciates your support of this effort.

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer Yes

Document Name

Comment

EEl supports placing the Reliability Coordinator data specification requirements within IRO-010.

Likes 0

Dislikes 0

Response

The SDT appreciates your support of this effort.

David Jendras - Ameren - Ameren Services - 3

Answer Yes

Document Name

Comment

Ameren Agrees with and supports NAGF comments

Likes	0
Dislikes	0
Response	
Please see the SDT's responses to NAGF.	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	Yes
Document Name	
Comment	
<p>Allowing different planning entities the ability to make multiple requests of generators results in inefficiencies and can take focus away from more critical activities. A central, streamlined, and consistent process for submitting this type of data would benefit the grid. For greatest efficiency, NERC should proactively work with TOPs and RCs to identify pertinent information related to cold weather operating characteristics (and other areas of critical concern). NERC should consider if the Align tool, GADS portal, Misoperation Portal, or other similar centralized tools, could be used to streamline how / when these data requests are made. In addition, a centralized portal could include a data submission element such that a GO/GOP only must submit data once for it to be used, as required, by the appropriate planning entities (TOP, BA, RC).</p> <p>If a centralized tool is not developed, the SDT should add a minimum time requirement to R3/R4/R5 such that the planning entity is required to give ample notice to the entity from which it is requesting data. Currently, each planning entity has a different process and timeline for making data requests; as a GO/GOP registered in multiple regions we must understand and work within each planning entity's process. In addition, the onus should be on the planning entities to provide a fulsome, publicly available (on Align or NERC Website) list of entities required to submit data vs. requiring entities to rely on negative confirmation.</p>	
Likes	0
Dislikes	0
Response	
Thank you for your comments. IRO-010 and TOP-003 per those requesting data the flexibility to determine their exact data requirements without being too prescriptive. Also, these standards already have provisions to allow the data recipients to address	

issues with the respective data requestor that may include minimum time requirements. It is understood that the Align tool may provide a consistent means related to data requests in the future.

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper

Answer Yes

Document Name

Comment

Santee Cooper recommends R1.3 be a phased in implementation in case GOs have problems getting the unit-specific design specification and they have not been collecting historical performance. Phasing this requirement in allows GOs time to start collecting the minimum historical performance data during cold weather.

Also, what is “cold weather” for this requirement? This could be a very different interpretation of this term based on where generating resources are located in North America. Is the expectation that an entity define what constitutes cold weather? That may cause an issue during an audit.

Likes 0

Dislikes 0

Response

Thank you for your comments. The proposed implementation time has been increased to 18 months. Also, “specified design specifications has been removed from Part 1.3. The SDT determined during the development of the SAR, that since there are different interpretations of “cold weather” across the ERO due to geographic location and climate, it would not be feasible to define a term that would be acceptable to everyone. Each entity should use their own weather resource(s) and operating experience for their generating facilities to establish the appropriate cold weather conditions.

Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb

Answer Yes

Document Name

Comment

Energy supports and incorporates by reference Edison Electric Institute’s response to Question 2.

Likes 0

Dislikes 0

Response

Please see the SDT’s response to EEI.

Marcus Bortman - APS - Arizona Public Service Co. - 6

Answer

Yes

Document Name

Comment

AZPS would like to know what is the minimum periodicity for data to be provided? For example, seasonal vs annual. What is the requirement timeline for new generation added after the implementation date of this requirement? What is the scope of the data requirement or design criteria? Is the “minimum historical performance during cold weather” defined as 5 years as specified in EOP-011 R7.3.2.2? What is the implementation plan for new generating units?

Likes 0

Dislikes 0

Response

Thank you for your comments. The RC, BA and TOP establish the periodicity per IRO-010 and TOP-003. The data recipients of these standards can address any conflicts with their respective data requestors which may include minimum periodicity. The implementation period has been increased to 18 months for the proposed revised standards. The scope of the data requirement is determined by the RC, BA and TOP. Design criteria is determined by the Generator Owner. Part 7.3.2.2 has been revised to address your concerns related to historical performance.

Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric

Answer	Yes
Document Name	
Comment	
DTEE agrees with the NAGF that the placement of Reliability Coordinator data specification requirements in the IRO standard is appropriate.	
Likes 0	
Dislikes 0	
Response	
The SDT appreciates your support of this effort.	
Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
For Black Hills Corporation, it depends on what the RC requires when they rewrite their data specification which will then apply to the entities under their footprint.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment.	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	Yes
Document Name	

Comment

R1.3 Provisions for notification of BES generating unit-specific design temperature or minimum historical performance during cold weather, and expected BES generating unit operation limitations during local forecasted cold weather. We recommend focusing on minimum historical performance and defining the time period (e.g. 50 yr) to provide a more consistent approach across regions.

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF

Answer

Yes

Document Name

Comment

The NAGF agrees with placement of Reliability Coordinator data specification requirements in the IRO-010 standard.

Likes 0

Dislikes 0

Response

The SDT appreciates your support of this effort.

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority

Answer

Yes

Document Name

Comment

The proposed requirement 7.3.2.2 in EOP-011 has a 5-year limitation on historical data. However, the new requirements in IRO-010 do not have this limitation. As such, will the historical information be required back to the commissioning of the unit? If not, please add the 5-year limitation.

Likes 1 Tennessee Valley Authority, 5, Thomas M Lee

Dislikes 0

Response

Thank you for your comments. Part 7.3.2.2 has been revised to address your concerns.

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer Yes

Document Name

Comment

Southern Company agrees that IRO-010 is the best fit for this new RC data specification requirement. Southern Company offers the following suggestions for the SDT.

1. Revise the wording of proposed requirement 1.3

a. Suggest re-wording to “Provisions for notification of BES generating unit-specific minimum design temperature or if design temperature is not available, the minimum historical temperature during cold weather in the previous 5 years in which the unit has demonstrated full output operation, and BES generating unit operating limitations during local forecasted cold weather.”

Likes 0

Dislikes 0

Response

Thank you for your comments. Part 1.3 has been revised to address your concerns.

Leonard Kula - Independent Electricity System Operator - 2

Answer	Yes
Document Name	
Comment	
N/A.	
Likes 0	
Dislikes 0	
Response	
Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC	
Answer	Yes
Document Name	
Comment	
<p>Seattle City Light appreciates the efforts of the SDT to balance the requirement for an industry-wide standard while not burdening entities located in routinely cold regions with administrative activities. As part of this balance, Seattle understands that the SDT intends the term “cold weather” and associated activities to apply to conditions that are extremely or abnormally cold for a particular location or region, rather than applying a single measure of “cold weather” (such as “below freezing”) across the continent. What is “cold weather” for a plant in Texas is routine weather for a plant in Minnesota or Canada, for instance. To make this distinction clear, Seattle recommends that wherever the term “cold weather” has been added to a Standard, it should be replaced with the term “abnormally cold weather.”</p>	
Likes 0	
Dislikes 0	
Response	
Thank you for your comments. The SDT will consider your recommendation when revising the proposed standards.	

Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne	
Answer	Yes
Document Name	
Comment	
<p>The ISO-NE supports the inclusion of the data specification requirements in IRO-010; however, recommends the SDT modify the text of the requirement to allow for entity flexibility in specifying the data provided to ensure that the data received is actionable for use in Reliability Coordinator models.</p> <p>1.3. Provisions for notification of operating limitations, capability and availability for generating Facility(ies) during current and projected cold weather conditions.</p>	
Likes	0
Dislikes	0
Response	
Thank you for your comments. Part 1.3 has been revised to address your concerns.	
Donald Lock - Talen Generation, LLC - 5	
Answer	Yes
Document Name	
Comment	
<p>Talen agrees with placement of Reliability Coordinator data specification requirements in the IRO-010 standard.</p>	
Likes	0
Dislikes	0
Response	
The SDT appreciates your support of this effort.	

Jun Hua - Austin Energy - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Larry Rogers - Southern Indiana Gas and Electric Co. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Donna Johnson - Oglethorpe Power Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
David Hathaway - WEC Energy Group, Inc. - 6	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Teresa Cantwell - Lower Colorado River Authority - 5	
Answer	Yes
Document Name	

Comment

Likes 0

Dislikes 0

Response

Anthony Jablonski - ReliabilityFirst - 10

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Devon Tremont - Taunton Municipal Lighting Plant - 1

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Matthew Beilfuss - WEC Energy Group, Inc. - 4	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	

Thomas Breene - WEC Energy Group, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Erick Barrios - New York Power Authority - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Patricia Lynch - NRG - NRG Energy, Inc. - 5

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Dan Roethemeyer - Vistra Energy - 5

Answer Yes

Document Name

Comment	
Likes 0	
Dislikes 0	
Response	
Tyson Archie - Platte River Power Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes 1	Platte River Power Authority, 3, Kiess Wade
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Laura Nelson - IDACORP - Idaho Power Company - 1	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
John Allen - City Utilities of Springfield, Missouri - 1,3,4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute".	
Likes 0	
Dislikes 0	
Response	

Neil Shockey - Edison International - Southern California Edison Company - 5	
Answer	
Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDTs' response to EEI.	
Brian Evans-Mongeon - Utility Services, Inc. - 4	
Answer	
Document Name	
Comment	
Utility Services supports the comments posted by the TAPS group.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to TAPS group.	
Don Stahl - Black Hills Corporation - 3	
Answer	

Document Name	
Comment	
comments submitted	
Likes 0	
Dislikes 0	
Response	
<p>Rachel Coyne - Texas Reliability Entity, Inc. - 10</p>	
Answer	
Document Name	
Comment	
<p>Texas RE agrees with the addition of requirements for Reliability Coordinators (RCs) to develop a documented data specification including the provision for notification of BES generating unit-specific design performance during cold weather, as well as expected BES generating unit operational limitations during local forecasted cold weather. Texas RE suggests the SDT consider matching the language of the proposed IRO-010-4 Requirement R1, Part 1.3 with the proposed generating unit cold weather data requirements set forth EOP-011-2 Requirement R7, Part 7.3 as modified by Texas RE’s comments concerning that Part. In a similar vein to GOs, RCs should obtain data beyond minimal design temperatures or minimal historical performance over a five-year period so they can account for other factors such as ice build-up and snow load, which could have significant, detrimental reliability impacts that are independent from freezing temperature, especially for renewables in performing Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.</p> <p>The language, “provisions for notification”, could possibly be read to imply that the data provision is event-driven instead of data that is requested and collected by the RC prior to any forecasted cold weather event. While it may be helpful for the RC to receive event-driven notification from entities regarding any expected limitations during a specific forecasted cold weather event, the RC should be requesting and collecting data regarding design specifications and operating limitations for cold weather as part of the normal data request and collection processes, with the periodicity specified per IRO-010-4 Requirement R1, Part 1.4.</p>	

Likes 0	
Dislikes 0	
Response	
Thank you for your comments. The SDT has revised Part 1.3 and Part 7.3 to address your concerns. Regarding “provisions for notification”, the SDT agrees that a data request could at times, be event-driven such as that described in Part 1.2.	
Bruce Reimer - Manitoba Hydro - 1	
Answer	
Document Name	
Comment	
Not applicable.	
Likes 0	
Dislikes 0	
Response	

<p>3. The SDT placed the Transmission Operator data specification requirements within TOP-003. Do you agree with this modified requirement placement in the TOP-003 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.</p>	
<p>Kristina Marriott - First Solar, Inc. - 5</p>	
<p>Answer</p>	<p>No</p>
<p>Document Name</p>	
<p>Comment</p>	
<p>The industry may benefit from having all cold weather requirements located in a singled EOP Standard. For entities with multiple types of registered functions, searching for cold weather requirements in multiple different standards may be tedious and confusing.</p>	
<p>Likes 0</p>	
<p>Dislikes 0</p>	
<p>Response</p>	
<p>Thank you for your comments. The SDT understands your concerns and has included both the training requirements and the cold weather preparation plans in the single EOP standard. With regards to data specifications, the SDT determined that the Transmission Operator data spec requiriements would be appropriate for the TOP standard.</p>	
<p>Dylan Sontag - Silicon Ranch Corporation - 1 - SERC</p>	
<p>Answer</p>	<p>No</p>
<p>Document Name</p>	
<p>Comment</p>	
<p>There are no annual cold weather preparations for our solar facilities that need to be performed and our facilities are not limited in any way during cold weather.</p>	

Likes	0
Dislikes	0
Response	
<p>Thanks you for your comments. A cold weather preparedness plan needs to be developed based on your geographical region and facility design, which would be determined by the generating unit.</p>	
<p>Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1</p>	
Answer	No
Document Name	
Comment	
<p>For those generators that are located in cold climates and operate regularly in freezing weather, this standard will be a unnecessary administrative series of tasks. The Cold Weather Preparedness should be limited to those locations where cold weather operations is not frequent. Despite the recent problems in Texas, Generations in Northern climates continues to be reliable. Perhaps the standard needs to put the burden on Planning Coordinators to identify generators that are of high risk, and require Cold Weather preparedness from them, excluding others.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your input. The FERC report recommended national standards be put in place to require Generator Owners to implement cold weather preparedness plans. The SDT has previously discussed regional variances and determined to pursue industry-wide standards given the FERC recommendation. The SDT appreciates your comments regarding Planning Coordinators but to add that functional entity would require a re-draft of the SAR scope, which is not feasible given the timeline required by the NERC board of Directors.</p>	
<p>Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6</p>	
Answer	No

Document Name	
Comment	
<i>See response to Question 2 above.</i>	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	No
Document Name	
Comment	
Same comments as question 2.	
Likes 0	
Dislikes 0	
Response	
Marty Hostler - Northern California Power Agency - 5	
Answer	No
Document Name	
Comment	

NO. See response to Question 3.

Likes 0

Dislikes 0

Response

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's team response to Reclamation.

Glen Farmer - Avista - Avista Corporation - 5

Answer

No

Document Name

Comment

<p>This requirements implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have provisions for evaluating future weather events and acting on them. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems, but it is not officially filed.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. The SDT is proposing an implementation period of 18 months.</p>	
<p>Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy</p>	
Answer	No
Document Name	
Comment	
<p>This change is made redundant by the proposed change in due to the existing coordination required between the RC, BA, and TOP in IRO-008-2 R2. Since the BAs and TOPs will be required to include cold weather considerations as part of their data specifications and into their Operational Planning Analyses, the GOP will have to consider the potential cold weather impacts of its generators to provide information to the respective BAs and TOPs for inclusion in their Operating Plans. Suggest removal of R1.3 phrase "generating unit-specific design specification or minimum historical performance during cold weather" because this information is only valuable if the facility is maintained to design specifications.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SDT has determined that the data specifications and the requirements contained in the cold weather preparedness plans should be identical to reduce ambiguity.</p>	
<p>Richard Jackson - U.S. Bureau of Reclamation - 1</p>	

Answer	No
Document Name	
Comment	
<p>Requirement R1.3 states “unit specific design specifications.” It is assumed that this refers to cold weather design, but it is not clear. Hydroelectric generators are secured inside buildings and do not have these specifications. Reclamation recommends excluding hydroelectric generators from this requirement as they rely on water operations, for which cold weather considerations are already accounted by local operations and maintenance procedures.</p>	
Likes 0	
Dislikes 0	
Response	
<p>The SDT determined that all BES generators should be subject to the standards and has provided flexibility to allow the generator to determine its minimum operating temperature.</p>	
<p>Michael Whitney - Northern California Power Agency - 3, Group Name NCPA</p>	
Answer	No
Document Name	
Comment	
<p>Existing standards are not broken, they either are not being used, or enforced.</p> <p>The existing IRO-010/TOP-003 Standards already allows RCs and TOPs the opportunity to obtain said data via their data specification requests to GO/GOPS, if they intend on using said data.</p> <p>Forcing a RC or TOP to ask for data they don't need, nor have any accountability to use, is not efficient use of customer's dollars, and does not increase reliability. As proposed standard modifications are a mere administrative burden, that costs everyone with no measurable reliability benefit.</p>	

As TAPS mentioned in prior SAR Comments. The standards are written broadly by design, and thus include data specific to cold weather issues, as well as everything else that each RC, BA, or TOP needs to perform its operational functions.

Nor is there any indication in NERC's enforcement data that failure to respond to data specifications is a widespread problem. If RCs, BAs, and TOPs are, in fact, having trouble getting the information they need, that is a CMEP problem, not a standards problem, since, as noted above, IRO-010-2 and TOP-003-3 already require each RC, BA, and TOP to request, without limitation, "the data necessary for it to perform" its operational functions, and require the entities receiving the data specifications to provide all such data.

As NERC said in its petition for approval of (among others) IRO-010-1a, which used the same top-down approach as IRO-010-2 and TOP-003-3, "[t]he requirements in the standard specify a formal request as the method for the Reliability Coordinator to explicitly identify the data and information it needs for reliability; and require the entities with the data to provide it as requested. This method is sound because the Reliability Coordinator is the only entity that knows what data it needs to properly perform its reliability tasks, and the most efficient format for accepting this data." Docket No. RM10-15, at 35 (Dec. 31, 2009) (emphasis added). The alternative approach-listing each type of data that must be provided-will unavoidably be both under- and over-inclusive, since in addition to varying from one entity to another, data needs change over time as new technologies and risks emerge.

Likes 0

Dislikes 0

Response

The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur.

Michael Brytowski - Great River Energy - 3

Answer

No

Document Name

Comment

GRE supports the comments of the NSRF

Likes	0
Dislikes	0
Response	
Please see the SDT's response to NSRF.	
Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	No
Document Name	
Comment	
<p>All data required by the TOP should be the same data points as required for the BA and RC. This will provide consistency across these three Functional Entities. Recommend that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in TOP-003 (with modifications, see below) these are data points the TOP should want to ask for to ensure they know the capabilities of BES generators in their system during cold weather conditions.</p> <p>7.3.1 requires "operating limitations" and if those limitations are unknown, then 7.3.2 gives the GO other avenues to gather generator's cold weather data. At the end of 7.3.1 there is an "AND" this should be changed to an "OR". A GO may have data specified in 7.3.1 and if don't then they can use 7.3.2 to obtain the generator's cold weather data via different methods.</p>	
Likes	0
Dislikes	0
Response	
Thank you for your comments. Please see the revised standards.	
Dania Colon - Orlando Utilities Commission - 5	
Answer	No
Document Name	
Comment	

TOP-003 R1 already permits the TOP to ask for this data and EOP-011 requires the TOP to plan for this event. I don't believe it's necessary to add a redundant requirement to the obligation the TOP has in EOP-011 within the TOP-003 standard. R1.3 is only required for cold weather conditions. It doesn't include extreme weather conditions as specified in EOP-011 and should also be included for consistency.

Likes 0

Dislikes 0

Response

Thanks you for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur.

Keyleigh Wilkerson - Lincoln Electric System - 5, Group Name Lincoln Electric System

Answer

No

Document Name

Comment

LES contends that it should not be the TOP's responsibility to determine, or verify, cold weather capabilities of any units connected to their TOP Area. Requirements set forth related to the Generator Owners will be adhered to by them and units should be rated accordingly, just as in the FAC standards. The TOP should then require that capability information be submitted as part of the TOP-003 data specification and leave it at that. Even if multiple de-rates occur at different temperatures, all that should be needed is a rating schedule. Having the TOP require design specifications and performance data is not something they should, or are even equipped, to handle. Additionally, the phrase "operational limitations" is also ambiguous by nature; for a more clear and concise approach, we recommend referring to unit capabilities. To ensure TOPs are not inundated with unnecessary information, and to maintain clear expectations, LES suggests the following change to TOP-003 R1.3:

"R1.3. Provisions for notification of expected BES generating unit capabilities during local forecasted cold weather."

Likes 0

Dislikes 0

Response	
Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1	
Answer	No
Document Name	
Comment	
<p>All data required by the TOP should be the same data points as required for the BA and RC. This will provide consistency across these three Functional Entities. ACES recommends that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in TOP-003.</p> <p>AEPCO is signing on to ACES comments as well.</p>	
Likes	0
Dislikes	0
Response	
Thank you for your comments. Please see the revised standards.	
Dennis Sismaet - Northern California Power Agency - 6	
Answer	No
Document Name	
Comment	
<p>Existing standards are not broken, they either are not being used, or enforced.</p> <p>The existing IRO-010/TOP-003 Standards already allows RCs and TOPs the opportunity to obtain said data via their data specification requests to GO/GOPS, if they intend on using said data.</p>	

Forcing a RC or TOP to ask for data they don't need, nor have any accountability to use, is not efficient use of customer's dollars, and does not increase reliability. As proposed standard modifications are a mere administrative burden, that costs everyone with no measurable reliability benefit.

As TAPS mentioned in prior SAR Comments. The standards are written broadly by design, and thus include data specific to cold weather issues, as well as everything else that each RC, BA, or TOP needs to perform its operational functions.

Nor is there any indication in NERC's enforcement data that failure to respond to data specifications is a widespread problem. If RCs, BAs, and TOPs are, in fact, having trouble getting the information they need, that is a CMEP problem, not a standards problem, since, as noted above, IRO-010-2 and TOP-003-3 already require each RC, BA, and TOP to request, without limitation, "the data necessary for it to perform" its operational functions, and require the entities receiving the data specifications to provide all such data.

As NERC said in its petition for approval of (among others) IRO-010-1a, which used the same top-down approach as IRO-010-2 and TOP-003-3, "[t]he requirements in the standard specify a formal request as the method for the Reliability Coordinator to explicitly identify the data and information it needs for reliability; and require the entities with the data to provide it as requested. This method is sound because the Reliability Coordinator is the only entity that knows what data it needs to properly perform its reliability tasks, and the most efficient format for accepting this data." Docket No. RM10-15, at 35 (Dec. 31, 2009) (emphasis added). The alternative approach-listing each type of data that must be provided-will unavoidably be both under- and over-inclusive, since in addition to varying from one entity to another, data needs change over time as new technologies and risks emerge.

Likes	0
Dislikes	0

Response

Thanks for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur.

Mike Magruder - Avista - Avista Corporation - 1

Answer	No
Document Name	

Comment

This requirement implementation period is one year. We would need more time to implement this. Two years would be requested. GO & GOP doesn't have a cold weather preparedness plan. In the Northwest we already specify our Units to perform based on local temperatures. We do inspections of equipment and systems but it is not officially filed. We currently do not track training on the roles and responsibilities of site personnel.

Likes 0

Dislikes 0

Response

The SDT is proposing an 18 month implementation period.

Larry Heckert - Alliant Energy Corporation Services, Inc. - 4

Answer

No

Document Name

Comment

Alliant Energy supports the comments submitted by the MRO NSRF.

Likes 0

Dislikes 0

Response

Please see the SDT's response to MRO NSRF.

Wayne Guttormson - SaskPower - 1

Answer

No

Document Name

Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to MRO NSRF.	
Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE	
Answer	No
Document Name	
Comment	
<p>The existing language in TOP-003 already provides for the collection of "...data and information necessary needed by the Transmission Operator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments...". This would include any generator cold or extreme weather limitations; therefore, is unnecessary to specifically address. Additionally, the NERC Functional Model identifies the Balancing Authority as the entity responsible for "Formulating an operational plan (generation commitment, outage, etc.) for reliability evaluation." The TOP is responsible for the Real-time operating reliability of the transmission assets under its control. The TOP should not be required to ensure the Balancing Authority is performing their function. This is evidenced in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018", in which the TOP function was not identified.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur. The SAR includes the TOP and therefore the SDT has included the TOP in the requirements.</p>	

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations	
Answer	No
Document Name	
Comment	
All data required by the TOP should be the same data points as required for the BA and RC. This will provide consistency across these three Functional Entities. ACES recommends that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in TOP-003.	
Likes	0
Dislikes	0
Response	
Thank you for your comments. The SDT has included provisions to ensure the data specification requirements are identical.	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	
Comment	
NV Energy cannot agree to the revisions, as it requests additional clarity within the Standard, or in a Technical Guidance document, on the definition of "operation limitations".	
Likes	0
Dislikes	0
Response	
Thanks you for your comments. A Technical Rationale and Implementation Guidance will be proposed in the next comment period.	

George Brown - Acciona Energy North America - 5	
Answer	No
Document Name	
Comment	
Acciona Energy USA Global, LLC (Acciona) supports the Midwest Reliability Organization NERC Standards Review Forum's (MRO NSRF) comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to MRO NSRF.	
Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1	
Answer	No
Document Name	
Comment	
MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to MRO NSRF.	
Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5	
Answer	No

Document Name	
Comment	
<p>{C} The existing language in TOP-003 already provides for the collection of "...data and information necessary needed by the Transmission Operator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments..." This would include any generator cold or extreme weather limitations. There is no need to spell it out individually. Additionally, the NERC Functional Model identifies the Balancing Authority as the entity responsible for "Formulating an operational plan (generation commitment, outage, etc.) for reliability evaluation." The TOP is responsible for the Real-time operating reliability of the transmission assets under its purview. The TOP should not be required to ensure the Balancing Authority is performing their function, which is probably why the TOP function was not mentioned in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018." {C}{C}{C}[A1]{C} {C}[A2]{C}</p> <p>The existing language in TOP-003 already provides for the collection of "...data and information necessary needed by the Transmission Operator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments...". This would include any generator cold or extreme weather limitations; therefore, is unnecessary to specifically address. Additionally, the NERC Functional Model identifies the Balancing Authority as the entity responsible for "Formulating an operational plan (generation commitment, outage, etc.) for reliability evaluation." The TOP is responsible for the Real-time operating reliability of the transmission assets under its control. [A3] The TOP should not be required to ensure the Balancing Authority is performing their function. This is evidenced in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018", in which the TOP function was not identified.</p>	
Likes	0
Dislikes	0
Response	
<p>Thanks you for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur.</p>	
<p>Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro</p>	
Answer	No

Document Name	
Comment	
<p>The proposed Requirement R1.3 references “unit-specific design specification”, which is a very broad term that seems better suited to facility ratings/design. Secondly, there needs to be added context on what constitutes “minimal historical performance”. This can be captured in Facilities ratings/design standards including dependencies on temperature or other weather parameters for specific “emergency” conditions, and how these may affect a generating unit’s operating limitations.</p> <p>The term “cold weather” can have varied interpretations throughout the continent, so a more concise term and/or definition that would also include which weather elements may be subject to this (e.g. cold weather may imply this is just for ice/snow) would be helpful.</p> <p>BC Hydro suggest that the IRO-010 language be kept to the specific information, such as the designed operating temperature range of a unit that would be necessary for performing Operations Planning Analyses</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SDT has revised the proposed standards and are offering a Technical Rationale and Implementation Guidance for review.</p> <p>Erin Green - Western Area Power Administration - 1,6</p>	
Answer	No
Document Name	
Comment	
<p>Support comments by Western Area Power Administration, Sean Erickson, Segment 1.</p>	
Likes	0
Dislikes	0

Response	
Please see the SDT's response to WAPA, Sean Erickson, Segment 1.	
Glenn Pressler - CPS Energy - 3	
Answer	No
Document Name	
Comment	
Do not agree with adding generation limitations to TOP data specification is beneficial, especially in the ERCOT region, as generation data is communicated directly to ERCOT, not the TOP.	
Likes	0
Dislikes	0
Response	
Thank you for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur.	
Gladys DeLaO - CPS Energy - 1	
Answer	No
Document Name	
Comment	
Do not agree with adding generation limitations to TOP data specification is beneficial, especially in the ERCOT region, as generation data is communicated directly to ERCOT, not the TOP.	
Likes	0
Dislikes	0

Response	
<p>Thank you for your comments. The FERC report recommended that the specificity of cold weather related data be specifically included in the communications between the GO/GOP and the RC/BA. The SDT team determined that the data specification requirements was the appropriate standard to ensure the communications occur. The SAR includes the TOP and therefore the SDT has included the TOP in the requirements.</p>	
<p>Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2</p>	
Answer	No
Document Name	
Comment	
<p>As ERCOT has noted below in response to Question 8, it would be more straightforward to place the communication obligation on the GOP through a new R8 in EOP-011. However, if the SDT proceeds with a data specification requirement, ERCOT agrees it would be appropriate to place such a requirement on the TOP and BA by inserting new R1.3 and new R2.3 in TOP-003, to read as follows:</p> <p>1.3/2.3 Provisions for notification of generating unit capability and availability that reflects any operating limitations or unit-specific design specifications during actual and anticipated cold weather conditions.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. TOP-003 has been revised to include the BA.</p>	
<p>Scott McGough - Georgia System Operations Corporation - 3</p>	
Answer	No
Document Name	2019-06_Cold_Weather_Comments_FINAL_GSOC_SBFCB03-11-21.docx

Comment: New requirement R1.3 feels overly specific and redundant of R1.1. It singles out activities surrounding cold weather, but does not address other extreme weather conditions that could affect grid conditions, e.g., extreme heat, humidity, and rain/wind events. GSOC respectfully suggests that the entire sub-requirement could be more effective as an example listed under R1.1

Likes 0

Dislikes 0

Response

Thank you for your comment. The FERC report recommended that reliability standards be developed that specifically provided for the substantive information included in the draft standards. Whereas R1.1 refers to data generally determined by the TOP to perform its studies, the specifics in 1.3 are recommended by FERC. Extreme heat, humidity, and rain/wind events are outside the scope of the approved SAR, and the SDT is unable to address those given the timeframe mandated by the NERC Board.

Donald Lock - Talen Generation, LLC - 5

Answer Yes

Document Name

Comment

Talen agrees with placement of Transmission Operator data specification requirements in the TOP-003 standard.

Likes 0

Dislikes 0

Response

Thank you for your support.

Thomas Foltz - AEP - 5

Answer Yes

Document Name	
Comment	
<p>While AEP sees the value and benefit of the inclusion of the Transmission Operator data specification requirements as currently proposed, AEP is concerned by exactly how this data would conceivably be used, specifically in regards to the potential impact that the sharing of this information could unintentionally have on the market. For example, an entity could perhaps be running close to a design specification or minimum historical performance and could perhaps be penalized as a result. We are also concerned by the potential subjectivity or inconsistency that might occur in determining compliance.</p> <p>In addition, we also believe there needs to be some clarity within the proposed revisions on what actions the receiving entity should take, or perhaps should-not take, as a result of receiving this provided information.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SDT has focused on the FERC report recommendations and understands organized markets have their own recommendations to consider but which are outside the scope of the SAR.</p>	
<p>Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC</p>	
Answer	Yes
Document Name	
Comment	
<p>Seattle City Light appreciates the efforts of the SDT to balance the requirement for an industry-wide standard while not burdening entities located in routinely cold regions with administrative activities. As part of this balance, Seattle understands that the SDT intends the term “cold weather” and associated activities to apply to conditions that are extremely or abnormally cold for a particular location or region, rather than applying a single measure of “cold weather” (such as “below freezing”) across the continent. What is “cold weather” for a plant in Texas is routine weather for a plant in Minnesota or Canada, for instance. To make this distinction clear, Seattle</p>	

recommends that wherever the term “cold weather” has been added to Standard, it should be replaced with the term “abnormally cold weather.”

Likes 0

Dislikes 0

Response

The FERC report is focused on preparations for all cold weather. The SDT believes abnormally cold weather is a sub-set that would be covered by the broader terms.

Leonard Kula - Independent Electricity System Operator - 2

Answer Yes

Document Name

Comment

N/A.

Likes 0

Dislikes 0

Response

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer Yes

Document Name

Comment

Southern Company agrees that TOP-003 is the best fit for this new TOP data specification requirement. Southern Company offers the following suggestions for the SDT.

1. Revise the wording of proposed requirement 1.3

a. Suggest re-wording to “Provisions for notification of BES generating unit-specific minimum design temperature or if design temperature is not available, the minimum historical temperature during cold weather in the previous 5 years in which the unit has demonstrated full output operation, and BES generating unit operating limitations during local forecasted cold weather.”

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the revised standards.

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority

Answer

Yes

Document Name

Comment

The proposed requirement 7.3.2.2 in EOP-011 has a 5-year limitation on historical data. However, the new requirements in TOP-003 do not have this limitation. As such, will the historical information be required back to the commissioning of the unit? If not, please add the 5-year limitation.

Likes 1

Tennessee Valley Authority, 5, Thomas M Lee

Dislikes 0

Response

Thank you. The SDT has revised the requirements to maintain consistency across the standards.

Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF

Answer	Yes
Document Name	
Comment	
The NAGF agrees with placement of Transmission Operator data specification requirements in the TOP-003 standard.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comments.	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	Yes
Document Name	
Comment	
Similar to IRO-010 modifications, we recommend focusing on minimum historical performance and defining the time period (e.g. 50 year) to provide a more consistent approach across regions.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comments. Please see the revised standards for the current requirements.	
Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	

Comment

For Black Hills Corporation, it depends on what other TOPs require when they rewrite their data specification. Black Hills Corporation believes the addition of unit-specific information and limitations during local forecasted cold weather will be helpful for our studies.

Likes 0

Dislikes 0

Response

Thanks for your input.

Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric

Answer

Yes

Document Name

Comment

Consistent with the NAGF, DTEE agrees with placement of Transmission Operator data specification requirements in the TOP-003 standard.

Likes 0

Dislikes 0

Response

Thank you for your support.

Marcus Bortman - APS - Arizona Public Service Co. - 6

Answer

Yes

Document Name

Comment

AZPS agrees that the requirement is in the correct standard, TOP-003. However, AZPS does not see value added for the addition of this requirement and feels it is somewhat redundant to TOP-002 engineering study, resource commitment, etc? Consider BA applicability.	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The studies performed under TOP-002 are to ensure that Transmission Operators and Balancing Authorities have plans for operating inside its footprint within specified limits. The information to be provided by the Generator Owners are unit specific capabilities and operating limitations in cold weather which will be provided to the Transmission Operators and Balancing Authorities per the data specification requirements. TOP-003 has been updated to include the Balancing Authorities.</p> <p>Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb</p>	
Answer	Yes
Document Name	
Comment	
<p>Evergy supports and incorporates by reference Edison Electric Institute’s response to Question 3.</p>	
Likes	0
Dislikes	0
Response	
<p>Please see the SDT’s response to EEI Question 3.</p> <p>Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper</p>	
Answer	Yes
Document Name	

Comment

Santee Cooper has concerns with the term cold weather as this could be interpreted differently depending on where generating resources are located. Should there be some standard definition of cold weather as below a certain temperature?

Likes 0

Dislikes 0

Response

The SDT considered defining cold weather but decided to allow the GO to identify the appropriate definition of cold weather for its units.

Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC

Answer

Yes

Document Name

Comment

Allowing different planning entities the ability to make multiple requests of generators results in inefficiencies and can take focus away from more critical activities. A central, streamlined, and consistent process for submitting this type of data would benefit the grid. For greatest efficiency, NERC should proactively work with TOPs and RCs to identify pertinent information related to cold weather operating characteristics (and other areas of critical concern). NERC should consider if the Align tool, GADS portal, Misoperation Portal, or other similar centralized tools, could be used to streamline how / when these data requests are made. In addition, a centralized portal could include a data submission element such that a GO/GOP only must submit data once for it to be used, as required, by the appropriate planning entities (TOP, BA, RC).

If a centralized tool is not developed, the SDT should add a minimum time requirement to R3/R4/R5 such that the planning entity is required to give ample notice to the entity from which it is requesting data. Currently, each planning entity has a different process and timeline for making data requests; as a GO/GOP registered in multiple regions we must understand and work within each planning entity's process. In addition, the onus should be on the planning entities to provide a fulsome, publicly available (on Align or NERC Website) list of entities required to submit data vs. requiring entities to rely on negative confirmation.

Likes	0
Dislikes	0
Response	
Thank you for your comments. Your suggestions have been passed onto NERC.	
David Jendras - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
Ameren Agrees with and supports NAGF comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to NAGF.	
Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
EEI supports placing the Transmission Operator data specification requirements within TOP-003.	
Likes	0
Dislikes	0
Response	

Thank you for your support.	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon supports placing the Transmission Operator (TOP) data specification requirements within TOP-003.	
On Behalf of Exelon, Segments: 1, 3, 5, 6	
Likes	0
Dislikes	0
Response	
Thank you for your support.	
Bobbi Welch - Midcontinent ISO, Inc. - 2	
Answer	Yes
Document Name	
Comment	
MISO supports the IRC SRC comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	

Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey

Answer Yes

Document Name

Comment

Yes, PG&E generally agrees with the proposed modifications proposed in TOP-003-5 as proposed.

Likes 0

Dislikes 0

Response

Thank you for your support.

Jamie Johnson - California ISO - 2

Answer Yes

Document Name

Comment

CAISO supports the inclusion of the data specification requirements within TOP-003 however, recommends the SDT move R1.3 to R2 making this a requirement of the BA rather than the TOP.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT determined that the edits to the TOP are accurate and added these modifications to the BA Requirement R2.

Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis

Answer	Yes
Document Name	
Comment	
PJM supports the IRC SRC comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to IRC SRC.	
Aaron Staley - Orlando Utilities Commission - 1	
Answer	Yes
Document Name	
Comment	
I don't believe it is necessary to include the language in TOP-003. EOP-011 requires the TOP to plan for cold weather. TOP-003 is to ensure the TOP can receive the data it needs and TOP-003 R1 allows the TOP to ask for data in addition to the existing sub-parts of R1. TOP-003 purpose does not include prescribing to the TOP what data they need, but ensuring they have access to the data they determine they need.	
Likes 0	
Dislikes 0	
Response	
Thank you for your input.	
John Allen - City Utilities of Springfield, Missouri - 1,3,4	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Laura Nelson - IDACORP - Idaho Power Company - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Tyson Archie - Platte River Power Authority - 5	
Answer	Yes
Document Name	

Comment	
Likes 1	Platte River Power Authority, 3, Kiess Wade
Dislikes 0	
Response	
Dan Roethemeyer - Vistra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Bruce Reimer - Manitoba Hydro - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Erick Barrios - New York Power Authority - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Thomas Breene - WEC Energy Group, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Matthew Beilfuss - WEC Energy Group, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Devon Tremont - Taunton Municipal Lighting Plant - 1	
Answer	Yes
Document Name	

Comment

Likes 0

Dislikes 0

Response

Anthony Jablonski - ReliabilityFirst - 10

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Teresa Cantwell - Lower Colorado River Authority - 5

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
David Hathaway - WEC Energy Group, Inc. - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Donna Johnson - Oglethorpe Power Corporation - 5

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Larry Rogers - Southern Indiana Gas and Electric Co. - 5

Answer Yes

Document Name

Comment

Likes 0	
Dislikes 0	
Response	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Jun Hua - Austin Energy - 4	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	
Comment	
<p>Texas RE agrees with the addition of requirements for Transmission Operators (TOPs) to develop a documented data specification including the provision for notification of BES generating unit-specific design performance during cold weather, as well as expected BES generating unit operational limitations during local forecasted cold weather. Texas RE suggests the SDT consider matching the language of the proposed TOP-003-5 Requirement R1, Part 1.3 with the proposed generating unit cold weather data requirements set forth EOP-011-2 Requirement R7, Part 7.3 as modified by Texas RE's comments concerning that Part. Much like GOs, TOPs should obtain data beyond minimal design temperatures or minimal historical performance over a five-year period so they can account for other factors such as ice build-up and snow load, which could have significant, detrimental reliability impacts that are independent from freezing temperature, especially for renewables in performing Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.</p> <p>The language, "provisions for notification", could possibly be read to imply that the data provision is event-driven instead of data that is requested and collected by the TOP prior to any forecasted cold weather event. While it may be helpful for the TOP to receive event-driven notification from entities regarding any expected limitations during a specific forecasted cold weather event, the TOP should be requesting and collecting data regarding design specifications and operating limitations for cold weather as part of the normal data request and collection processes, with the periodicity specified per TOP-003-5 Requirement R1, Part 1.4.</p>	
Likes 0	

Dislikes 0	
Response	
Thank you for your comments. The SDT aligned the language of the proposed TOP-003-5 R1 Part 1.3 with the EOP-011 R7 Part 7.3. Please see the updated modifications.	
Don Stahl - Black Hills Corporation - 3	
Answer	
Document Name	
Comment	
comments submitted	
Likes 0	
Dislikes 0	
Response	
Brian Evans-Mongeon - Utility Services, Inc. - 4	
Answer	
Document Name	
Comment	
Utility Services supports the comments posted by the TAPS group.	
Likes 0	
Dislikes 0	
Response	

Please see the SDT's response to the TAPS group.	
Neil Shockey - Edison International - Southern California Edison Company - 5	
Answer	
Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to EEI.	
Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute".	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to EEI.	

4. The SDT placed the Balancing Authority data specification requirements within EOP-011. Do you agree with this modified requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

ERCOT does not see a proposed data specification requirement in EOP-011. If the SDT intends to proceed with a data specification requirement for BAs, ERCOT suggests that this would most appropriately be placed in TOP-003 R2 (see response to Question 3, above).

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Gladys DeLaO - CPS Energy - 1

Answer No

Document Name

Comment

Not clear on the "data specification requirement" added for the BA; appears to be adding BA requirement to add "Processes to prepare for and mitigate Emergencies including" for cold weather conditions; this is too vague to offer reliable solution to the 2021 cold weather event.

Likes 0

Dislikes	0
Response	
Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification and these were not meant to be within EOP-011.	
Glenn Pressler - CPS Energy - 3	
Answer	No
Document Name	
Comment	
Not clear on the “data specification requirement” added for the BA; appears to be adding BA requirement to add “Processes to prepare for and mitigate Emergencies including” for cold weather conditions; this is too vague to offer reliable solution to the 2021 cold weather event.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification and these were not meant to be within EOP-011.	
Jamie Johnson - California ISO - 2	
Answer	No
Document Name	
Comment	
CAISO agrees with comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee.	
Likes	0
Dislikes	0

Response	
Thank you for your comment. See response for the comments submitted by the IRC SRC.	
Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)	
Answer	No
Document Name	
Comment	
IRC SRC recommends the Balancing Authority data specification requirements be defined under TOP-003 along with the TOP data specification requirements.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Erin Green - Western Area Power Administration - 1,6	
Answer	No
Document Name	
Comment	
Support comments by Western Area Power Administration, Sean Erickson, Segment 1.	
Likes	0
Dislikes	0
Response	

Thank you for your comment. See response for the comments submitted by WAPA.	
Bobbi Welch - Midcontinent ISO, Inc. - 2	
Answer	No
Document Name	
Comment	
MISO supports the IRC SRC comments	
Likes	0
Dislikes	0
Response	
Thank you for your comment. See response for the comments submitted by the IRC SRC.	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	No
Document Name	
Comment	
CEPM agrees with the inclusion of cold weather conditions in R2, but feel it should be a sub-requirement under extreme weather conditions to allow for other extreme weather sub-requirements at a later date (i.e. hurricane, Tornado, Thunder/Lightning, GMD, etc...)	
Likes	0
Dislikes	0
Response	
The SDT determined that a definition of cold weather was not needed within EOP-011's Requirements, but will expand upon the intent of this term within the associated Technical Reference document being developed.	

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
The posted EOP-011 draft for comment (EOP-011-2 Redline 01272021) does not appear to include a new or modified EOP-011 Requirement identifying “Balancing Authority data specification requirements” referenced in Question #4 above. Please clarify.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5	
Answer	No
Document Name	
Comment	
The SDT provided no data specification requirement in EOP-011. Instead, the language in EOP-011 requires the BA to develop, maintain and implement one or more Operating Plan to address cold weather conditions – which is appropriate. However, we also believe that modifications to TOP-003 to address data specifications for the BA are unnecessary given Requirement R2 already includes language to specify “the data necessary for it to perform its analysis functions and Real-time monitoring” and Requirement R5 requires all applicable entities to provide the specified data.	
Likes	0
Dislikes	0
Response	

Thank you for your comment. The SDT has determined that a BA data specification should be located in TOP-003 to add more specificity and has updated the Standard accordingly.

Larry Rogers - Southern Indiana Gas and Electric Co. - 5

Answer No

Document Name

Comment

The SDT revisions applicable to the BA placed in EOP-011 address the inclusion of the reliability impacts of cold weather conditions in the BA's emergency operations plan(s) and do not address the data specification. Any revisions to the BA data specification requirement would better fit in TOP-003 R2.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1

Answer No

Document Name

Comment

MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.

Likes 0

Dislikes 0

Response	
Thank you for your comment. See response for the comments submitted by the MRO NSRF.	
George Brown - Acciona Energy North America - 5	
Answer	No
Document Name	
Comment	
Acciona Energy USA Global, LLC (Acciona) supports the Midwest Reliability Organization NERC Standards Review Forum's (MRO NSRF) comments.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. See response for the comments submitted by the MRO NSRF.	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	
Comment	
For consistency, the BA data spec should be handled similarly to the TOP data spec and be included in TOP-003.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations	
Answer	No
Document Name	
Comment	
All data required by the BA should be the same data points as required for the RC and TOP. This will provide consistency across these three Functional Entities. BA data request should not be in EOP-011-2 but rather in TOP-003 R2. ACES recommends that Part 7.3 and its subcomponents be deleted from the proposed EOP-011-2 and be placed in TOP-003.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly. Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.	
David Hathaway - WEC Energy Group, Inc. - 6	
Answer	No
Document Name	
Comment	
See Tom Breene's comments.	
Likes	0
Dislikes	0
Response	

Thank you for your comment. See response for the comments submitted by Tom Breene.	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	No
Document Name	
Comment	
Santee Cooper recommends adding a requirement to TOP-003 for the BA to request data specifications from a GO.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE	
Answer	No
Document Name	
Comment	
The SDT provided no data specification requirement in EOP-011. Instead, the language in EOP-011 requires the BA to develop, maintain and implement one or more Operating Plan to address cold weather conditions – which is appropriate. However, we also believe that modifications to TOP-003 to address data specifications for the BA are unnecessary given Requirement R2 already includes language to specify “the data necessary for it to perform its analysis functions and Real-time monitoring” and Requirement R5 requires all applicable entities to provide the specified data.	
Likes	0
Dislikes	0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly. Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.

Wayne Guttormson - SaskPower - 1

Answer No

Document Name

Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.

Likes 0

Dislikes 0

Response

Thank you for your comment. See response for the comments submitted by the MRO-NSF

Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather

Answer No

Document Name

Comment

The SDT revisions applicable to the BA placed in EOP-011 address the inclusion of the reliability impacts of cold weather conditions in the BA's emergency operations plan(s) and do not address the data specification. Any revisions to the BA data specification requirement would better fit in TOP-003 R2.

Likes 0

Dislikes 0

Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	No
Document Name	
Comment	
The SDT revisions applicable to the BA placed in EOP-011 address the inclusion of the reliability impacts of cold weather conditions in the BA's emergency operations plan(s) and do not address the data specification. Any revisions to the BA data specification requirement would better fit in TOP-003 R2.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Larry Heckert - Alliant Energy Corporation Services, Inc. - 4	
Answer	No
Document Name	
Comment	
Alliant Energy supports the comments submitted by the MRO NSRF.	
Likes	0
Dislikes	0

Response

Thank you for your comment. See response for the comments submitted by the MRO NSRF.

Anthony Jablonski - ReliabilityFirst - 10

Answer	No
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Document Name	
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Comment

- For EOP-011-2 R7. 7.1, consider rewording the sub-requirement to emphasize that geographic location and plant configuration are only some examples of unique factors (other unique factors can and should be considered). See example below.
 - 7.1 Generating unit(s) freeze protection measures based on unique factors that include, but are not limited to, geographical location, plant configuration, and varying operational scenarios.
- For EOP-011-2 R7. 7.3.2.2, there are two recommendations and suggested rewording below:
 - - i. The wording, “demonstrated historical performance”, in 7.3.2.2 could be interpreted that historical cold weather information is only applicable when the generator is typically running/operational. Suggest to reword so that 7.3.2.2 is focused on cold weather experienced over a period of time at a plant location.
 - ii. Extend the timeframe from 5 years to 10 years. This aligns with the language in BAL-502-RF-03 to review resource adequacy based on “one day in ten year” loss of Load expectation. Other Reliability Coordinators/Planning Coordinators also has various assessment test methods that are designed to review risks associated with a “one day in ten year” type of event. This change may better cover geographic areas that do not frequently experience cold weather events.

7.3.2.2. Minimum demonstrated historical cold weather experienced in the previous 10 years

Likes	0
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Dislikes	0
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Response

Thank you for your comment. The SDT has modified EOP-011-2 R7.1 to remove ‘unique’. The Technical Reference document associated with this Project will expand upon the intent of this sub-requirement.

Devon Tremont - Taunton Municipal Lighting Plant - 1

Answer	No
Document Name	
Comment	
<p>The BA data specification requirements should be added to TOP-003, as the SDT is proposing to do for the TOP data specification requirements. The BA language should mirror the TOP and RC language, as described below; using different language, and putting it in a different location from other BA data specification requirements, will lead to unnecessary confusion. BAs, RCs, and TOPs need the same data with respect to cold weather limitations, and it will be more efficient for GOs to be able to provide the same data to each entity.</p> <p>Proposed EOP-011, R7.3 is essentially a data specification requirement; it should thus be moved to IRO-010 and TOP-003 and combined with the new proposed language in those standards. The wording should also be revised to more accurately reflect the requirement’s goal: that entities that need the information be made aware of the conditions under which the generator will be inoperable. That goal can be accomplished via the communication of known cold weather operating limitations, the minimum design temperature, the minimum demonstrated historical performance during cold weather, or an engineering analysis. It would be inappropriate to require entities to provide multiple forms of evidence of the same fact.</p> <p>In addition, “in the previous 5 years” should be deleted from R7.3.2.2, because it results in an unnecessary administrative requirement to update the information every year regardless of whether there has been a change. Referring simply to the “minimum demonstrated historical performance during cold weather” requires an update only if there is a change.</p> <p>The data specification requirement for BAs, TOPs, and RCs (renumbered as appropriate) should read:</p> <p>7.3. Provisions for notification of BES generating unit-specific data related to expected performance in cold weather, to include:</p> <p>7.3.1. Generating unit(s):</p> <p>7.3.1.1 operating limitations in cold weather; or</p> <p>7.3.1.2. minimum design temperature; or</p> <p>7.3.1.3. minimum demonstrated historical performance during previous cold weather events; or</p>	

7.3.1.4 engineering analysis of expected operation limitations in cold weather.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

The SDT agrees that “the previous 5 years” term is not needed and removed this term from sub-requirement R7.3.2.2. and added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature”

All sub-requirements of EOP-011 Requirement R7.3.2. have been modified as “or” statements.

Matthew Beilfuss - WEC Energy Group, Inc. - 4

Answer

No

Document Name

Comment

TOP-003 contains the BA Data Specification, these requirements should be included in that Standard.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le

Answer	No
Document Name	
Comment	
<p>The BA data specification requirements should be added to TOP-003, as the SDT is proposing to do for the TOP data specification requirements. The BA language should mirror the TOP and RC language, as described below; using different language, and putting it in a different location from other BA data specification requirements, will lead to unnecessary confusion. BAs, RCs, and TOPs need the same data with respect to cold weather limitations, and it will be more efficient for GOs to be able to provide the same data to each entity.</p> <p>Proposed EOP-011, R7.3 is essentially a data specification requirement; it should thus be moved to IRO-010 and TOP-003 and combined with the new proposed language in those standards. The wording should also be revised to more accurately reflect the requirement’s goal: that entities that need the information be made aware of the conditions under which the generator will be inoperable. That goal can be accomplished via the communication of known cold weather operating limitations, the minimum design temperature, the minimum demonstrated historical performance during cold weather, or an engineering analysis. It would be inappropriate to require entities to provide multiple forms of evidence of the same fact.</p> <p>In addition, “in the previous 5 years” should be deleted from R7.3.2.2, because it results in an unnecessary administrative requirement to update the information every year regardless of whether there has been a change. Referring simply to the “minimum demonstrated historical performance during cold weather” requires an update only if there is a change.</p> <p>The data specification requirement for BAs, TOPs, and RCs (renumbered as appropriate) should read:</p> <p>7.3. Provisions for notification of BES generating unit-specific data related to expected performance in cold weather, to include:</p> <p>7.3.1. Generating unit(s):</p> <p>7.3.1.1 operating limitations in cold weather; or</p> <p>7.3.1.2. minimum design temperature; or</p> <p>7.3.1.3. minimum demonstrated historical performance during previous cold weather events; or</p>	

7.3.1.4 engineering analysis of expected operation limitations in cold weather.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.

The SDT agrees that “the previous 5 years” term is not needed and removed this term from sub-requirement R7.3.2.2. and added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature”

Mike Magruder - Avista - Avista Corporation - 1

Answer

No

Document Name

Comment

The addition for R1 (1.2.6.) for TOP would be satisfied by R7 so it would be on the GO to provide information.

Likes 0

Dislikes 0

Response

Thank you for your comment. EOP-011 Requirement R1.2.6 has been further modified to clarify the expectations of the TOP Operating Plan

Rebecca Baldwin - Transmission Access Policy Study Group - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

The BA data specification requirements should be added to TOP-003, as the SDT is proposing to do for the TOP data specification requirements. The BA language should mirror the TOP and RC language, as described below; using different language, and putting it in a different location from other BA data specification requirements, will lead to unnecessary confusion. BAs, RCs, and TOPs need the same data with respect to cold weather limitations, and it will be more efficient for GOs to be able to provide the same data to each entity.

Proposed EOP-011, R7.3 is essentially a data specification requirement; it should thus be moved to IRO-010 and TOP-003 and combined with the new proposed language in those standards. The wording should also be revised to more accurately reflect the requirement’s goal: that entities that need the information be made aware of the conditions under which the generator will be inoperable. That goal can be accomplished via the communication of known cold weather operating limitations, the minimum design temperature, the minimum demonstrated historical performance during cold weather, or an engineering analysis. It would be inappropriate to require entities to provide multiple forms of evidence of the same fact.

In addition, “in the previous 5 years” should be deleted from R7.3.2.2, because it results in an unnecessary administrative requirement to update the information every year regardless of whether there has been a change. Referring simply to the “minimum demonstrated historical performance during cold weather” requires an update only if there is a change.

The data specification requirement for BAs, TOPs, and RCs (renumbered as appropriate) should read:

7.3. Provisions for notification of BES generating unit-specific data related to expected performance in cold weather, to include:

7.3.1. Generating unit(s):

7.3.1.1 operating limitations in cold weather; or

7.3.1.2. minimum design temperature; or

7.3.1.3. minimum demonstrated historical performance during previous cold weather events; or
 7.3.1.4 engineering analysis of expected operation limitations in cold weather.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.

The SDT agrees that “the previous 5 years” term is not needed and removed this term from sub-requirement R7.3.2.2. and added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature.

All sub-requirements of EOP-011 Requirement R7.3.2. have been modified as “or” statements.

Brian Evans-Mongeon - Utility Services, Inc. - 4

Answer No

Document Name

Comment

Utility Services supports the comments posted by the TAPS group.

Likes 0

Dislikes 0

Response

Thank you for your comment. See response for the comments submitted by the TAPS group.

Dennis Sismaet - Northern California Power Agency - 6	
Answer	No
Document Name	
Comment	
There is no data specification requirement for the BA. So I am not clear why this question was asked. Did the SDT post the work files on the NERC website? Or make an error by asking this question?	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1	
Answer	No
Document Name	
Comment	
All data required by the BA should be the same data points as required for the RC and TOP. This will provide consistency across these three Functional Entities. BA data request should not be in EOP-011-2 but rather in TOP-003 R2. ACES recommends that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in TOP-003.	
AEPCO is signing on to ACES comments as well.	
Likes	0
Dislikes	0
Response	

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.
 Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.
 Thank you for your comment. See response for the comments submitted by ACES.

Thomas Breene - WEC Energy Group, Inc. - 3

Answer	No
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Document Name	
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Comment

TOP-003 contains the BA Data Specification, these requirements should be included in that Standard

Likes 1	WEC Energy Group, Inc., 5, OBrien Janet
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Dislikes 0	
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Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Ballard Mutters - Orlando Utilities Commission - 3

Answer	No
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Document Name	
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Comment

The BA data specification requirements should be added to TOP-003, as the SDT is proposing to do for the TOP data specification requirements. The BA language should mirror the TOP and RC language, as described below; using different language, and putting it in a

different location from other BA data specification requirements, will lead to unnecessary confusion. BAs, RCs, and TOPs need the same data with respect to cold weather limitations, and it will be more efficient for GOs to be able to provide the same data to each entity.

Proposed EOP-011, R7.3 is essentially a data specification requirement; it should thus be moved to IRO-010 and TOP-003 and combined with the new proposed language in those standards. The wording should also be revised to more accurately reflect the requirement’s goal: that entities that need the information be made aware of the conditions under which the generator will be inoperable. That goal can be accomplished via the communication of known cold weather operating limitations, the minimum design temperature, the minimum demonstrated historical performance during cold weather, or an engineering analysis. It would be inappropriate to require entities to provide multiple forms of evidence of the same fact.

In addition, “in the previous 5 years” should be deleted from R7.3.2.2, because it results in an unnecessary administrative requirement to update the information every year regardless of whether there has been a change. Referring simply to the “minimum demonstrated historical performance during cold weather” requires an update only if there is a change.

The data specification requirement for BAs, TOPs, and RCs (renumbered as appropriate) should read:

7.3. Generating unit(s) cold weather data, Provisions for notification of BES generating unit-specific data related to expected performance in cold weather, to include:

7.3.1. Generating unit(s):

7.3.1.1 operating limitations in cold weather; and or

7.3.2. Generating unit(s):

7.3.2.11.2. minimum design temperature; or

7.3.2.21.3. minimum demonstrated historical performance during previous cold weather events; or in the previous 5 years;

Likes	0
Dislikes	0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.
Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.

The SDT agrees that “the previous 5 years” term is not needed and removed this term from sub-requirement R7.3.2.2. and added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature”

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority

Answer No

Document Name

Comment

The posted EOP-011-2 redline does not require the BA to make a change to its data specification. Balancing Authority data specification requirements should be addressed in TOP-003 Requirement R2. We do support the addition of language in EOP-011 Requirement R2 to include reliability impacts of cold weather or any other extreme weather conditions in a Balancing Authority’s Operating Plan(s).

Likes 1 Tennessee Valley Authority, 5, Thomas M Lee

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Dania Colon - Orlando Utilities Commission - 5

Answer No

Document Name

Comment

Proposed EOP-011, R7.3 is essentially a data specification requirement; it should thus be moved to IRO-010 and TOP-003 and combined with the new proposed language in those standards. The wording should also be revised to more accurately reflect the requirement’s goal: that entities that need the information be made aware of the conditions under which the generator will be inoperable. That goal can be accomplished via the communication of known cold weather operating limitations, the minimum design temperature, the minimum demonstrated historical performance during cold weather, or an engineering analysis. It would be inappropriate to require entities to provide multiple forms of evidence of the same fact.

In addition, “in the previous 5 years” should be deleted from R7.3.2.2, because it results in an unnecessary administrative requirement to update the information every year regardless of whether there has been a change. Referring simply to the “minimum demonstrated historical performance during cold weather” requires an update only if there is a change.

The data specification requirement for BAs, TOPs, and RCs (renumbered as appropriate) should read:

7.3. Generating unit(s) cold weather data, Provisions for notification of BES generating unit-specific data related to expected performance in cold weather, to include:

7.3.1. Generating unit(s):

7.3.1.1 operating limitations in cold weather; and or

7.3.2. Generating unit(s):

7.3.2.11.2. minimum design temperature; or

7.3.2.21.3. minimum demonstrated historical performance during previous cold weather events; or in the previous 5 years;

7.3.1.4 engineering analysis of expected operation limitations in cold weather.

Likes	0
Dislikes	0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Additionally, the SDT has further modified EOP-011 Requirement R7.3 and updated TOP-003 similarly with the same data specification.

The SDT agrees that “the previous 5 years” term is not needed and removed this term from sub-requirement R7.3.2.2. and added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature”

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer	No
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Document Name	
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Comment

All data required by the BA should be the same data points as required for the RC and TOP. This will provide consistency across these three Functional Entities. BA data request should not be in EOP-011-2 but rather in TOP-003 R2. Recommend that Part 7.3 and its sub-components be deleted from the proposed EOP-011-2 and be placed in TOP-003 (with modifications, see below) these are data points the RC should want to ask for to ensure they know the capabilities of BES generators in their system during cold weather conditions.

7.3.1 requires “operating limitations” and if those limitations are unknown, then 7.3.2 gives the GO other avenues to gather generator’s cold weather data. At the end of 7.3.1 there is an “AND” this should be changed to an “OR”. A GO may have data specified in 7.3.1 and if don’t then they can use 7.3.2 to obtain the generator’s cold weather data via different methods.

Likes	0
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Dislikes	0
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Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

All sub-requirements of EOP-011 Requirement R7.3.2. have been modified as “or” statements.

The SDT has added sub-requirement R7.3.2.3. to include the option of “engineering analysis to determine current minimum cold weather performance temperature”

Michael Brytowski - Great River Energy - 3

Answer	No
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Document Name	
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Comment

GRE supports the comments of the NSRF

Likes 0	
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Dislikes 0	
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Response

Thank you for your comment. See response for the comments submitted by the NSRF.

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	No
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Document Name	
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Comment

There is no data specification requirement for the BA. So I am not clear why this question was asked. Did the SDT post the work files on the NERC website? Or make an error by asking this question?

Likes 0	
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Dislikes 0	
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Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly

Richard Jackson - U.S. Bureau of Reclamation - 1

Answer No

Document Name

Comment

The posted clean and redline versions of EOP-011 do not appear to identify any Balancing Authority data specification requirements. As identified for the data specifications for Reliability Coordinators and Transmission Operators, Reclamation recommends excluding hydroelectric generators from this requirement as they rely on water operations, for which cold weather considerations are already accounted by local operations and maintenance procedures.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly

EOP-011 Requirement R7 allows for each generation facility to prepare a cold weather preparedness plan based on the needs of their operation. No generation type has been eliminated from the Standard at this time.

Glen Farmer - Avista - Avista Corporation - 5

Answer No

Document Name

Comment

The addition for R1 (1.2.6.) for TOP would be satisfied by R7 so it would be on the GO to provide information.

Likes 0

Dislikes 0

Response

Thank you for your comment. EOP-011 Requirement R1.2.6 has been further modified to clarify the expectations of the TOP Operating Plan

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes 0

Response

BPA supports Reclamation's comments.

Marty Hostler - Northern California Power Agency - 5

Answer No

Document Name

Comment

There is no data specification requirement for the BA. So I am not clear why this question was asked. Did the SDT post the work files on the NERC website? Or make an error by asking this question?	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power	
Answer	No
Document Name	
Comment	
Instead of adding a new BA requirement in EOP-011, Tacoma Power recommends adding a sub-requirement to TOP-003 R2 for the BA to request data specifications from GO.	
Likes	2
	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott; Snohomish County PUD No. 1, 3, Chaney Holly
Dislikes	0
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Thomas Foltz - AEP - 5	
Answer	No

Document Name	
Comment	
AEP is unsure of the meaning or intent of this question, as we are unable to locate the proposed changes inferred by the question itself.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.	
Dylan Sontag - Silicon Ranch Corporation - 1 - SERC	
Answer	No
Document Name	
Comment	
There are no annual cold weather preparations for our solar facilities that need to be performed and our facilities are not limited in any way during cold weather.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. EOP-011 Requirement R7 allows for each generation facility to prepare a cold weather preparedness plan based on the needs of their operation. NERC's 2019 Winter Weather Preparation webinar includes some parameters for solar facilities to consider (https://www.nerc.com/pa/rrm/Webinars%20DL/Winter Weather Prep Webinar 20190905.pdf). Additionally, NERC's Reliability Guideline includes some winter weather readiness parameters for solar facilities to consider (https://www.nerc.com/comm/OC Reliability Guidelines DL/Reliability Guideline Generating Unit Winter Weather Readiness v3 Final.pdf)	

Kristina Marriott - First Solar, Inc. - 5	
Answer	No
Document Name	
Comment	
The industry may benefit from having all cold weather requirements located in a singled EOP Standard. For entities with multiple types of registered functions, searching for cold weather requirements in multiple different standards may be tedious and confusing.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment.	
Scott McGough - Georgia System Operations Corporation - 3	
Answer	No
Document Name	2019-06_Cold_Weather_Comments_FINAL_GSOC_SBFCB03-11-21.docx
Comment Requirements R1.2.6 and R2.2.9 narrowly focus on cold weather amid existing references to extreme weather. While these would be demonstrative as examples, the current structure seems redundant.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. The modifications to 1.2.6. and 2.2.9. are to address the cold weather recommendation from the FERC and NERC report. The “extreme weather conditions” language is legacy language and therefore the team did not feel it was necessary to remove, but to add a qualifier subpart addressing the cold weather recommendation.	

Aaron Staley - Orlando Utilities Commission - 1

Answer Yes

Document Name

Comment

I don't think that the phrase "Data Specification" optimally reflects the changes in EOP-011-2 for the BA. There is a requirement to plan for cold weather which may require them to request data, and they can request that data under the existing TOP-003 R2 which does not require modification.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis

Answer Yes

Document Name

Comment

PJM supports the IRC SRC comments.

Likes 0

Dislikes 0

Response

Please see SDT's response to the IRC SRC.

Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey

Answer Yes

Document Name

Comment

Yes, PG&E generally agrees with the proposed modifications of EOP-011 with respect to the Balancing Authority.

Likes 0

Dislikes 0

Response

Thank you for your support.

Daniel Gacek - Exelon - 1

Answer Yes

Document Name

Comment

Exelon agrees with the placement of the Balancing Authority (BA) data specifications in the EOP-011 Reliability Standard.

On Behalf of Exelon, Segments: 1, 3, 5, 6

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	Yes
Document Name	
Comment	
EEI agrees with the placement of Balancing Authority (BA) data specifications in EOP-011 Reliability Standard.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.	
David Jendras - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
Ameren Agrees with and supports NAGF comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to the NAGF.	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	Yes
Document Name	
Comment	

Allowing different planning entities the ability to make multiple requests of generators results in inefficiencies and can take focus away from more critical activities. A central, streamlined, and consistent process for submitting this type of data would benefit the grid. For greatest efficiency, NERC should proactively work with TOPs and RCs to identify pertinent information related to cold weather operating characteristics (and other areas of critical concern). NERC should consider if the Align tool, GADS portal, Misoperation Portal, or other similar centralized tools, could be used to streamline how / when these data requests are made. In addition, a centralized portal could include a data submission element such that a GO/GOP only must submit data once for it to be used, as required, by the appropriate planning entities (TOP, BA, RC).

If a centralized tool is not developed, the SDT should add a minimum time requirement to R3/R4/R5 such that the planning entity is required to give ample notice to the entity from which it is requesting data. Currently, each planning entity has a different process and timeline for making data requests; as a GO/GOP registered in multiple regions we must understand and work within each planning entity's process. In addition, the onus should be on the planning entities to provide a fulsome, publicly available (on Align or NERC Website) list of entities required to submit data vs. requiring entities to rely on negative confirmation.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT project scope did not include the option of developing additional NERC platform reporting obligations, however this may be developed by NERC in the future.

Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb

Answer Yes

Document Name

Comment

Evergy supports and incorporates by reference Edison Electric Institute's response to Question 4.

Likes 0

Dislikes	0
Response	
Thank you for your comment. See response for the comments submitted by the EEI.	
Marcus Bortman - APS - Arizona Public Service Co. - 6	
Answer	Yes
Document Name	
Comment	
<p>AZPS agrees but would like to add the additional comments. “Cold weather” is not defined. “Extreme weather conditions” not defined. Is it based on temperature or geography? What is the scope of “cold” and “extreme”?</p> <p>Move 1.2.6 to be a sub-bullet under 1.2.5 and move 2.2.9 to be a sub-bullet under 2.2.8 (example below)</p> <p>1.2.5. Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and Reliability impacts of:</p> <ul style="list-style-type: none"> 1.2.5.1. cold weather conditions; and 1.2.5.2. any other extreme weather conditions <p>2.2.8. Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and Reliability impacts of:</p> <ul style="list-style-type: none"> 2.2.8.1. cold weather conditions; and 2.2.8.2. any other extreme weather conditions. 	
Likes	0
Dislikes	0
Response	

The SDT determined that a definition of cold weather was not needed within EOP-011’s Requirements, but will expand upon the intent of this term within the associated Technical Reference document being developed.

EOP-011 Requirement R1.2.6 and R2.2.9 have been further modified to clarify the expectations of the TOP and BA Operating Plans respectively.

Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric

Answer	Yes
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Document Name	
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Comment

Consistent with the NAGF, DTEE agrees with placement of Balancing Authority data specification requirements in the EOP-011 standard.

Likes	0
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Dislikes	0
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Response

Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.

Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer	Yes
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Document Name	
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Comment

While Black Hills Corporation is not a BA, we do not see any reason to further break down EOP-011 R1.2.6 and 2.2.9

Likes	0
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Dislikes	0
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Response

Thank you for your comment. EOP-011 Requirement R1.2.6 and R2.2.9 have been further modified to clarify the expectations of the TOP and BA Operating Plans respectively.

Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF

Answer Yes

Document Name

Comment

The NAGF agrees with placement of Balancing Authority data specification requirements in the EOP-011 standard.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer Yes

Document Name

Comment

None.

Likes 0

Dislikes 0

Response

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer	Yes
Document Name	
Comment	
Southern Company believes that this should be included in TOP-003-5 R2, as noted below in our response to Question 7.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.	
Leonard Kula - Independent Electricity System Operator - 2	
Answer	Yes
Document Name	
Comment	
N/A.	
Likes 0	
Dislikes 0	
Response	
Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC	
Answer	Yes
Document Name	

Comment

Seattle City Light appreciates the efforts of the SDT to balance the requirement for an industry-wide standard while not burdening entities located in routinely cold regions with administrative activities. As part of this balance, Seattle understands that the SDT intends the term “cold weather” and associated activities to apply to conditions that are extremely or abnormally cold for a particular location or region, rather than applying a single measure of “cold weather” (such as “below freezing”) across the continent. What is “cold weather” for a plant in Texas is routine weather for a plant in Minnesota or Canada, for instance. To make this distinction clear, Seattle recommends that wherever the term “cold weather” has been added to Standard, it should be replaced with the term “abnormally cold weather.”

Likes 0

Dislikes 0

Response

The SDT determined that a definition of cold weather was not needed within EOP-011’s Requirements, but will expand upon the intent of this term within the associated Technical Reference document being developed.

Bruce Reimer - Manitoba Hydro - 1

Answer Yes

Document Name

Comment

If the standard is geared towards ensuring generators run during extreme weather events, should not the same performance factors be considered during ALL weather events? What critical generator auxiliaries are affected by weather events? Should the standard require an evaluation of all systems that are required to run/operate the generator, and have each of those systems evaluated for their limitations during various weather events? i.e. If a thermal unit requires river water as part of its cooling system, does the unit have any limitations during a drought? If so, does your plan address those/have a plan for that?

Likes 0

Dislikes 0

Response

Thank you for your comment. EOP-011 Requirement R7 allows for each generation facility to prepare a cold weather preparedness plan based on the needs of their operation. NERC’s 2019 Winter Weather Preparation webinar includes some parameters for various generation facilities to consider ([https://www.nerc.com/pa/rrm/Webinars%20DL/Winter Weather Prep Webinar 20190905.pdf](https://www.nerc.com/pa/rrm/Webinars%20DL/Winter_Weather_Prep_Webinar_20190905.pdf)). Additionally, NERC’s Reliability Guideline includes some winter weather readiness parameters for various generation facilities to consider ([https://www.nerc.com/comm/OC Reliability Guidelines DL/Reliability Guideline Generating Unit Winter Weather Readiness v3 Final.pdf](https://www.nerc.com/comm/OC_Reliability_Guidelines_DL/Reliability_Guideline_Generating_Unit_Winter_Weather_Readiness_v3_Final.pdf))

Todd Bennett - Associated Electric Cooperative, Inc. - 3

Answer	Yes
Document Name	
Comment	
<p>In addition to the current EOP-011 draft language, the following language should be added to draft TOP-003-5 R2 to address the BA: “Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, and expected BES generating unit operation limitations during local forecasted cold weather”</p>	
Likes	0
Dislikes	0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne

Answer	Yes
Document Name	
Comment	

This is a "No" vote. ISO-NE recommends the Balancing Authority data specification requirements be defined under TOP-003 along with the TOP data specification requirements.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.

Donald Lock - Talen Generation, LLC - 5

Answer Yes

Document Name

Comment

Talen agrees with placement of Balancing Authority data specification requirements in the EOP-011 standard.

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT has updated TOP-003 to include the BA data specification.

Jun Hua - Austin Energy - 4

Answer Yes

Document Name

Comment

Likes 0

Dislikes	0
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Donna Johnson - Oglethorpe Power Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI	
Answer	Yes
Document Name	

Comment

Likes 0

Dislikes 0

Response

Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Teresa Cantwell - Lower Colorado River Authority - 5

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Erick Barrios - New York Power Authority - 6	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Dan Roethemeyer - Vistra Energy - 5	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Tyson Archie - Platte River Power Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes 1	Platte River Power Authority, 3, Kiess Wade
Dislikes 0	
Response	
Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Laura Nelson - IDACORP - Idaho Power Company - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
John Allen - City Utilities of Springfield, Missouri - 1,3,4	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Janet OBrien - WEC Energy Group, Inc. - 5	
Answer	
Document Name	
Comment	
Support comments submitted by Tom Breene of WEC Energy Group.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. See response for the comments submitted by the Tom Breene	
Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute".	

Likes 0	
Dislikes 0	
Response	
Thank you for your comment. See response for the comments submitted by the EEI.	
Neil Shockey - Edison International - Southern California Edison Company - 5	
Answer	
Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. See response for the comments submitted by the EEI.	
Don Stahl - Black Hills Corporation - 3	
Answer	
Document Name	
Comment	
comments submitted	
Likes 0	
Dislikes 0	

Response	
<p>Rachel Coyne - Texas Reliability Entity, Inc. - 10</p>	
Answer	
Document Name	
Comment	
<p>Texas RE agrees there should be data specification requirements for the Balancing Authority (BA) as the BA should have this data for its Operating Plan as proposed in the revised EOP-011-2 Requirement R2.</p> <p>In addition, however, Texas RE recommends that the SDT consider adopting similar unit-specific design specifications, minimum historical performance, and expected BES generating unit operation limitations data specification requirements for BAs in TOP-003-5 Requirement R2 as is currently established for TOPs in the proposed TOP-003-5 Requirement R1 and RCs in the proposed IRO-010-4 R1. The changes proposed in EOP-011 R2 require the BA to include the reliability impacts of cold weather conditions in its EOP-011 Operating Plan, but there does not appear to be a requirement for the BA to collect data related to design specifications and operating limitations as part of its data specification or for the GO to provide these parameters to the BA.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. The SDT agrees the BA data specification should be located in TOP-003 and has updated the Standard accordingly.</p>	
<p>Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6</p>	
Answer	
Document Name	
Comment	

: BA data specification requirements for NIPSCO would likely be covered by MISO via CFR00001.

Likes 0

Dislikes 0

Response

Thank you for your comment. Each BA is allowed to develop their own cold weather data specification from existing policies and procedures as long as they contain the specifications within IRO-010 and EOP-011

5. EOP-011-2 (Requirement R7 Part 7.2): The SDT suggest maintenance and inspection be, at a minimum, an annual requirement. Does the requirement provide enough specificity for an industry wide standard?	
Kristina Marriott - First Solar, Inc. - 5	
Answer	No
Document Name	
Comment	
<p>We would like to better understand the requirements for freeze protection on Peak Resources, such as Wind and Solar generating sources.</p> <p>Can maintenance and inspection be more defined by minimum requirements? If not, perhaps a FAQ / Supplementary Reference could provide additional details and examples.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. The SDT drafted the requirement so it would not be proscriptive by designed but all the GO to make the determination regarding appropriate freeze protection and maintenance and inspection requirements. Please see the SDT's support document Implementation Guidance.</p>	
Dylan Sontag - Silicon Ranch Corporation - 1 - SERC	
Answer	No
Document Name	
Comment	

If the equipment on-site does not require any specific cold weather maintenance, then this should not be a required.

Likes 0

Dislikes 0

Response

Thank you for your comments. This could be stated in the cold weather preparedness plan. In addition, The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Laura Nelson - IDACORP - Idaho Power Company - 1

Answer

No

Document Name

Comment

This requirement would be challenging to achieve at all plants on an annual basis. A more realistic alternative would be to tie this new "maintenance and inspections" requirement to regular generator maintenance intervals already in place at the entity.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1

Answer

No

Document Name

Comment

For those generators that are located in cold climates and operate regularly in freezing weather, this standard will be a unnecessary administrative series of tasks. The Cold Weather Preparedness should be limited to those locations where cold weather operations is not frequent. Despite the recent problems in Texas, Generations in Northern climates continues to be reliable. Perhaps the standard needs to put the burden on Planning Coordinators to identify generators that are of high risk, and require Cold Weather preparedness from them, excluding others.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country.

Tyson Archie - Platte River Power Authority - 5

Answer

No

Document Name

Comment

Platte River Power Authority suggests replacing annual with calendar year for the required maintenance and inspection schedule. Requiring actions to be performed each calendar year promotes consistency in audit approach across regions. Per the April 19, 2019 NERC CMEP Practice Guide, “annual” can be interpreted as once per calendar year, or a rolling 12-months. Calendar year is widely accepted across regions to be interpreted as January 1 to December 31 of each year. The use of calendar year is also consistent with other maintenance and testing standards such as PRC-005. This also allows registered entities the flexibility to complete maintenance and inspections that better align with generating plant maintenance cycles and rotating outages.

Likes 1

Platte River Power Authority, 3, Kiess Wade

Dislikes 0

Response

Thank you for your comments. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Bruce Reimer - Manitoba Hydro - 1	
Answer	No
Document Name	
Comment	
Annually is fine for entities with a limited number of generators, but this will become an extreme burden for companies like MH who has 100+ generators? Once every 3 calendar years (like blackstart testing) is recommended.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6	
Answer	No
Document Name	
Comment	
<i>R7 as a whole does not provide enough specificity. It is not clear what will be required for inspections, historical performance tracking, and awareness training in addition to the annual maintenance. Also, the term "calendar year" should be considered in lieu of "annual".</i>	
Likes	0
Dislikes	0
Response	

Thank you for your comments. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC

Answer No

Document Name

Comment

Seattle City Light appreciates the effort made by the SDT to balance the requirement for an industry-wide standard while not burdening entities located in routinely cold regions with administrative activities. However, in the case of inspection requirements, Seattle does not feel this balance has been met. The inspection and documentation requirements specifically call out freeze protection for documentation and annual inspection. This specificity goes against the general approach of focusing new requirements and activities on cold weather conditions that are abnormal for a particular location or region. Freezing conditions and freeze protection are normal for the northern half of the continent. As written, these requirements require administrative documentation and activities for entities with facilities in such locations. Seattle recommends that these requirements be revised to focus on the objective of documenting and annually inspecting those specific measures implemented to provide operating protection during abnormally cold conditions, whatever those may be for a particular location.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power

Answer	No
Document Name	
Comment	
Tacoma Power is supportive of specifying a periodicity of performing maintenance activities, if these activities are required. Instead of “annual,” Tacoma Power recommends specifying either “each calendar year”, “15-month” or “12-month” in accordance with the PER-005 Standards White Paper.	
Likes 2	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott; Snohomish County PUD No. 1, 3, Chaney Holly
Dislikes 0	
Response	
The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Marty Hostler - Northern California Power Agency - 5	
Answer	No
Document Name	
Comment	
NO. There are no reliability improvements or cost estimates posted. Please provide the SDT's proposed cost versus reliability improvement benefit analysis, for each region, and for annual versus bi-annual inspection/maintenance.	
Likes 0	
Dislikes 0	
Response	

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to Reclamation.

Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1

Answer No

Document Name

Comment

Part 7.2 should provide a list (or give examples) of minimum maintenance and inspection requirements for specific forms of freeze protection measures (e.g., what, at a minimum, would be required for maintenance and inspection of insulations, heat trace, etc).

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Erick Barrios - New York Power Authority - 6

Answer No

Document Name

Comment

See response to Question 1.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer No

Document Name

Comment

Annual Maintenance and Inspections should not be made mandatory.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer No

Document Name

Comment

Duke Energy agrees with Part 7.2 Annual Inspection of generating unit(s) freeze protection measures but suggests Part 7.2. clarify that Annual Maintenance is to be performed on an as-needed basis.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Richard Jackson - U.S. Bureau of Reclamation - 1

Answer No

Document Name

Comment

Annual maintenance for generator types and geographic areas that have never had a problem with cold weather represents an added regulatory burden for a problem that these generators and geographic areas do not have. Given the history of Facilities in northern, colder climates, annual maintenance and inspection requirements may be excessive. Reclamation recommends Generator Owners follow guidance derived from manufacturer specifications and entity evaluations of policy, procedure, and maintenance.

The terms “maintenance and inspection” are too vague. What type of inspections are intended to be required? Does this involve extensive inspections of internal equipment or is it a general life of material inspection? For an example of a clear, yet non-prescriptive presentation of inspection requirements, Reclamation recommends the SDT review FAC-501-WECC-3 Attachment A.

Due to the variety of interpretations of the term “annual,” Reclamation recommends any instances of an annual requirement specify that the required activity take place “at least every 12 months, not to exceed 15 months.”

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer

No

Document Name

Comment

There are no reliability improvements or cost estimates posted. Please provide the SDT's proposed cost versus reliability improvement benefit analysis, for each region, and for annual versus bi-annual inspection/maintenance.

Likes 0

Dislikes 0

Response

Thank you for your comment. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Dania Colon - Orlando Utilities Commission - 5	
Answer	No
Document Name	
Comment	
Annual maintenance and inspection needs to be defined: will it be required annually, Jan.-Dec. or annually from the last maintenance? Our units are not taken off line annually. Maintenance is staggered so we don't have all units out the same year.	
Likes 0	
Dislikes 0	
Response	
The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Ballard Mutters - Orlando Utilities Commission - 3	
Answer	No
Document Name	
Comment	
Some of these equipment's maintenance could have a significantly shorter maintenance intervals per manufacturer's recommendation.	
Likes 0	
Dislikes 0	
Response	

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1

Answer No

Document Name

Comment

What constitutes maintenance and inspection for this requirement is not explicitly clear. Additionally, requirement 7.1 requires measures based on “unique factors” which could potentially be interpreted and implemented as each and every unit possessing different “unique” measures, maintenance, and inspection parameters. This could create a major burden on both compliance and enforcement. ACES suggests more clearly defining what is being required by defining the terms used in the SAR so that the standard can be measured, implemented, and enforced uniformly across the industry.

AEPCO is signing on to ACES comments as well.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Dennis Sismaet - Northern California Power Agency - 6

Answer No

Document Name

Comment

There are no reliability improvements or cost estimates posted. Please provide the SDT's proposed cost versus reliability improvement benefit analysis, for each region, and for annual versus bi-annual inspection/maintenance.	
Likes	0
Dislikes	0
Response	
The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
Annual Maintenance and Inspections should not be made mandatory.	
Likes	0
Dislikes	0
Response	
The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	No
Document Name	

Comment	
<p>While annual inspection is reasonable for preparedness purposes, a required annual maintenance may not be appropriate to all technologies. For example, combined cycle unit outages may be every 2 years or more based on operational hours. Recommend some clarification as to what the SDT may be expecting this “annual maintenance” to address.</p>	
Likes	0
Dislikes	0
Response	
<p>The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.</p>	
<p>Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC</p>	
Answer	No
Document Name	
Comment	
<p>As noted in Question1: Annual is too broad of a term – define annual as each calendar year not to exceed fifteen months between occurrence.</p>	
Likes	0
Dislikes	0
Response	
<p>The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.</p>	
<p>Devon Tremont - Taunton Municipal Lighting Plant - 1</p>	

Answer	No
Document Name	
Comment	
<p>TMLP believes that an annual requirement is sufficient, but the specific timing of the maintenance and inspections should be further specified and/or additional guidance should be offered (such as prior to entering the winter season).</p>	
Likes 0	
Dislikes 0	
Response	
<p>The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.</p>	
<p>Marcus Bortman - APS - Arizona Public Service Co. - 6</p>	
Answer	No
Document Name	
Comment	
<p>AZPS is in agreement with an annual seasonal preparedness requirement, however that is contingent upon what is the scope of that requirement. The “generating unit freeze protection” term is not defined. Does the freeze protection term mean the defined unit design criteria? AZPS recommends verbiage that clearly defines freeze protection or allows the utility to define the scope of the seasonal preparedness requirements in their own procedures.</p>	
Likes 0	
Dislikes 0	
Response	

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE

Answer No

Document Name

Comment

OGE suggests replacing “annual” with “calendar” year for the required maintenance and inspection schedule. Per the April 19, 2019 NERC CMEP Practice Guide, “annual” can be interpreted as once per calendar year, or a rolling 12-months. Calendar year is widely accepted across regions to be interpreted as January 1 to December 31 of each year. The use of calendar year is also consistent with other maintenance and testing standards such as PRC-005. This also allows registered entities the flexibility to complete maintenance and inspections that better align with generating plant maintenance cycles and rotating outages.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper

Answer No

Document Name

Comment

Santee Cooper is in agreement of specifying a periodicity of performing maintenance activities but recommends these be required each calendar year instead of on an annual basis.

Likes 0

Dislikes 0

Response

The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI

Answer No

Document Name

Comment

This does not capture the freeze protection measures that are put in place on an as-needed basis such as heaters, blankets, etc.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country.

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations

Answer No

Document Name

Comment

What constitutes maintenance and inspection for this requirement is not explicitly clear. Additionally, requirement 7.1 requires measures based on “unique factors” which could potentially be interpreted and implemented as each and every unit possessing different “unique”

measures, maintenance, and inspection parameters. This could create a major burden on both compliance and enforcement. ACES suggests more clearly defining what is being required by defining the terms used in the SAR so that the standard can be measured, implemented, and enforced uniformly across the industry.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT is attempting to propose Standard changes that are flexible for utilities across the country.

George Brown - Acciona Energy North America - 5

Answer

No

Document Name

Comment

‘Annual’ is not a defined term, consider using bright line criteria. This would ensure that this is a performance-based requirement.

As stated by the Project 2014-01 Standards Applicability for Dispersed Generation Resources Standards Drafting Team’s white paper: “In some cases, the aggregated capability of the individual generating units may contribute to the reliability of the BPS; as such, there can be reliability benefit from ensuring that certain BES equipment utilized to aggregate the individual units to a common point of connection are operated and maintained as required in PRC-005. When evaluated individually, however, the generating units themselves do not have the same impact on BPS reliability as the system used to aggregate the units. The unavailability or failure of any one individual generating unit would have a negligible impact on the aggregated capability of the Facility; this would be irrespective to whether the dispersed generation resource became unavailable due to occurrence of a legitimate fault condition or due to a failure of a control system, protective element, dc supply, etc.”

https://www.nerc.com/pa/Stand/Prjct201401StrdrsAppDispGenRes/DGR_White_Paper_v17_clean_01_13_2016_Final_rev1.pdf

For dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, such as wind generation Facilities, each individual generating unit, a single wind turbine generator (WTG), can have many applicable freeze protections, that if not operational, could impede on the WTG’s ability to operate to its minimum design temperature. However, as stated by Project 2014-01 Standards Drafting Team, “The unavailability or failure of any one individual generating unit would have a negligible impact on the

aggregated capability of the Facility;”. Acciona would like to request the Project 2019-06 Cold Weather Standards Drafting Team consider whether Requirement R7. should be applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, considering the precedent set by Project 2014-01 Standards Applicability for Dispersed Generation Resources Standards Drafting Team. If the Project 2019-06 Cold Weather Standards Drafting Team determines that Requirement R7. should be applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition, then Acciona would like to suggest Project 2019-06 Cold Weather Standards Drafting Team consider a percentage/time-based approach for the applicable freeze protections installed in an individual generating units of dispersed power producing resources. For example, 20% of the applicable freeze protections installed in an individual generating units of dispersed power producing resources must be maintained and inspected on annual basis and 100% applicable freeze protections installed in an individual generating units of dispersed power producing resources must be maintained and inspected on a five year basis.

Likes 0

Dislikes 0

Response

Thank you for your comments. The requirements apply to all BES generation, therefore generators identified through Inclusion I4 would be subject to the standard. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5

Answer

No

Document Name

Comment

OKGE suggests replacing “annual” with “calendar” year for the required maintenance and inspection schedule. Per the April 19, 2019 NERC CMEP Practice Guide, “annual” can be interpreted as once per calendar year, or a rolling 12-months. Calendar year is widely accepted across regions to be interpreted as January 1 to December 31 of each year. The use of calendar year is also consistent with other maintenance and testing standards such as PRC-005. This also allows registered entities the flexibility to complete maintenance and inspections that better align with generating plant maintenance cycles and rotating outages

Likes	0
Dislikes	0
Response	
<p>The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.</p>	
<p>Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro</p>	
Answer	No
Document Name	
Comment	
<p>BC Hydro recommends that the language in R7.2 clarifies that "freeze protection measures" in R2 are those identified under R7.1.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. Please see the modifications made by the SDT.</p>	
<p>Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management</p>	
Answer	No
Document Name	
Comment	
<ul style="list-style-type: none"> • Needs to be prior to the cold weather season for inspections and any necessary system repairs. • Critical Paths should be identified: <ul style="list-style-type: none"> ○ Fuel resources ○ Instrument Air ○ Potable water 	

- Critical Paths need to be specified for:
 - Identified for heat trace
 - identified for heat blanket
 - Identified for barriers

Likes 0

Dislikes 0

Response

Thank you for your comments. The standards requirements are at a minimum, and extra actions by entities are welcome.

Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey

Answer

No

Document Name

Comment

No, PG&E believes Winter Preparations should be standard operating procedure, which would aid in avoiding Emergency Operations just as other utilities have commented. PG&E has a good handle on how cold weather impacts our facilities and how to respond without adding the additional requirement of a separate preparedness plan. PG&E Facilities have been designed to operate reliably in the conditional environment they exist in, most of which are located in cold mountainous terrain. Local Maintenance practices and procedures already exist as well as already established cold weather plans of which should be the only guidance necessary to continue reliable operation of PG&E’s facilities. In the point of recommending a locational fit PG&E would suggests considering the development of a new FAC Standard as the location.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Erin Green - Western Area Power Administration - 1,6

Answer No

Document Name

Comment

Support comments by Western Area Power Administration, Sean Erickson, Segment 1.

Likes 0

Dislikes 0

Response

Please see the SDT's comment to WAPA, Sean Erickson, Segment 1.

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer No

Document Name

Comment

OPG concurs with the NPCC Regional Standards Committee's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to NPCC Regional Standards Committee.

Glenn Pressler - CPS Energy - 3

Answer	No
Document Name	
Comment	
<p>Not clear on the “data specification requirement” added for the BA; appears to be adding BA requirement to add “Processes to prepare for and mitigate Emergencies including” for cold weather conditions; this is too vague to offer reliable solution to the 2021 cold weather event.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Thank you for your comment.</p>	
<p>Gladys DeLaO - CPS Energy - 1</p>	
Answer	No
Document Name	
Comment	
<p>Adding an “Annual maintenance and inspection of generating unit(s) freeze protection measures” requirement could appear beneficial from the outside, but such a requirement would not have helped prevent the Texas 2021 winter event. Such requirement would only be an administrative check box. Terms such as “Annual” is also too vague for example, in “7.2. Annual maintenance and inspection of generating unit(s) freeze protection measures” should be tightened to be more specific, like quarter before winter season each calendar year.</p>	
Likes 0	
Dislikes 0	
Response	

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

ERCOT refers the SDT to its response to No. 1 above. ERCOT also believes an additional inspection should be conducted immediately prior to any expected extreme cold weather event.

Likes 0

Dislikes 0

Response

Thank you for your comment. There are no requirements prohibiting entities from doing additional inspection, etc to prevent cold weather.

John Allen - City Utilities of Springfield, Missouri - 1,3,4

Answer Yes

Document Name

Comment

The drafting team should consider adding something like "not to exceed 15 months" similar to what's in other standards.

Likes 0

Dislikes 0

Response

The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.

Donald Lock - Talen Generation, LLC - 5

Answer Yes

Document Name

Comment

Talen supports the annual requirement for maintenance and inspection of generating unit freeze protection measures.

Likes 0

Dislikes 0

Response

Thank you for your comment and support.

Leonard Kula - Independent Electricity System Operator - 2

Answer Yes

Document Name

Comment

N/A.

Likes 0

Dislikes 0

Response

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer	Yes
Document Name	
Comment	
Southern Company believes this requirement could be viewed as somewhat vague, and that further clarification may be required other than just an “annual requirement”.	
Likes 0	
Dislikes 0	
Response	
The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Michael Brytowski - Great River Energy - 3	
Answer	Yes
Document Name	
Comment	
GRE supports the comments of the NSRF	
Likes 0	
Dislikes 0	
Response	
Please see the SDT’s response to NSRF.	
Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	Yes

Document Name	
Comment	
Suggest adding “not to exceed 15 calendar months” similar to what’s in other standards.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority	
Answer	Yes
Document Name	
Comment	
Maybe add verbiage to state inspection be, at a minimum, an annual requirement and not to exceed 15 calendar months.	
Likes 1	Tennessee Valley Authority, 5, Thomas M Lee
Dislikes 0	
Response	
Thank you for your comment. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF	
Answer	Yes

Document Name	
Comment	
The NAGF supports the annual requirement for maintenance and inspection of generating unit freeze protection measures.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment and support.	
Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric	
Answer	Yes
Document Name	
Comment	
Consistent with the NAGF, DTEE supports the annual requirement for maintenance and inspection of generating unit freeze protection measures.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment and support.	
Wayne Guttormson - SaskPower - 1	
Answer	Yes
Document Name	
Comment	

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.	
Likes	0
Dislikes	0
Response	
Thank you for your comment and support.	
Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb	
Answer	Yes
Document Name	
Comment	
Evergy supports and incorporates by reference Edison Electric Institute’s response to Question 5.	
Likes	0
Dislikes	0
Response	
Please see the SDT’s response to EEI.	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	Yes
Document Name	
Comment	
This requirement should be applicable to generators based on risk (i.e. not applicable to generators where operating in freezing conditions is standard operating procedure and does not equate an ‘operating emergency’). Where this requirement is applicable, the	

SDT should consider allowing the entity to make a risk-based maintenance plan with timelines (frequencies and scope of work can be offered via tables as in PRC-005). This would reduce inefficiencies related to doing unnecessary maintenance work annually just to satisfy a compliance standard. If the SDT is opposed to offering different timelines for different equipment, a 15-month to 24-month timeline should be incorporated, rather than annual. This would allow sites to better align their maintenance- and inspection-related work with their regular maintenance outages.

Likes	0
Dislikes	0

Response

Thank you for your comments and support. The requirement for a cold weather preparedness plan applies to all BES generators as a general rule and the GO may take its own unit’s specific attributes into consideration when drafting the plan.

David Jendras - Ameren - Ameren Services - 3

Answer	Yes
Document Name	

Comment

Ameren Agrees with and supports NAGF comments

Likes	0
Dislikes	0

Response

Please see the SDT’s response to NAGF.

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	Yes
Document Name	

Comment

The language within Requirement R7, subpart 7.2 is clear to ensure GOs conduct annual maintenance and inspection of their generating unit freeze protection.	
Likes	0
Dislikes	0
Response	
Thank you for your comments and support.	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
An annual requirement is reasonable, but we recommend using terminology consistent with other standards i.e. every "calendar year" or "not to exceed 15 months."	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The Cold Weather NERC/FERC report shows the important of awareness training due to cold weather incidents. It is up to the entity on the type of awareness training it provides. The SDT removed annual from the training requirement to allow entities the flexibility in how often they train.	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	

The language within Requirement R7, subpart 7.2 is clear to ensure GOs conduct annual maintenance and inspection of their generating unit freeze protection.

On Behalf of Exelon, Segments: 1, 3, 5, 6

Likes 0

Dislikes 0

Response

Thank you for your comment and support.

Bobbi Welch - Midcontinent ISO, Inc. - 2

Answer

Yes

Document Name

Comment

MISO supports the IRC SRC comments

Likes 0

Dislikes 0

Response

Please see the SDT's response to IRC SRC.

Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis

Answer

Yes

Document Name

Comment

PJM supports the IRC SRC comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	
Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	

Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Dan Roethemeyer - Vistra Energy - 5	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Thomas Breene - WEC Energy Group, Inc. - 3	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Scott McGough - Georgia System Operations Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Matthew Beilfuss - WEC Energy Group, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Anthony Jablonski - ReliabilityFirst - 10	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Teresa Cantwell - Lower Colorado River Authority - 5	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Larry Heckert - Alliant Energy Corporation Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
David Hathaway - WEC Energy Group, Inc. - 6	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Johnson - Oglethorpe Power Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Larry Rogers - Southern Indiana Gas and Electric Co. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	

Comment	
Likes 0	
Dislikes 0	
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jamie Johnson - California ISO - 2	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Jun Hua - Austin Energy - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Aaron Staley - Orlando Utilities Commission - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer

Document Name

Comment

As noted in its response to Question 1, Texas RE recommends additional specificity around maintenance and inspection activities and periodicity in a manner similar to the minimum maintenance activities and maximum maintenance intervals established under PRC-005-6. As noted in its previous response, the 2019 Cold Weather Report specifically identified “[p]erforming periodic adequate maintenance and inspection of freeze protection elements (e.g., generating units’ heat tracing equipment and thermal insulation)” as a key element to ensure GOs adequately prepare for cold weather conditions. To that end, Texas RE believes that specifically defining both minimum maintenance and inspection activities, as well as maximum maintenance and inspection intervals is important. By way of example, the 2019 Cold Weather Report specifically recommends GOs adopt “*regular, periodic operational checks of heat tracing circuits.*” (2019 Cold Weather Report, at 101 (emphasis added)). Texas RE recommends that the SDT specify minimal activities associated with such operational checks and define a regular, periodic maintenance schedule to ensure consistency across generators. For these types of “inspection-oriented” activities, performing such steps on an annual basis may not be sufficient.

GOs may be able to perform maintenance activities designed to ensure equipment functionality on an annual basis. Texas RE notes, however, that the 2019 Cold Weather Report recommended that GOs complete “freeze protection-related maintenance *prior to winter weather.*” (2019 Cold Weather Report, at 101). Accordingly, an annual requirement may not be sufficient to ensure that such freeze protection-related maintenance occurs in a timely fashion prior to a cold weather event. To address this, Texas RE recommends providing certain temporal parameters so that those activities are performed prior to winter, such as requiring annual maintenance occur between the months of April and October.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT declines to add proscriptive practices to the requirements, but would defer to the Generator Owner to determine which practices to implement consistent with the official NERC Reliability Guideline on generator unit winter

readiness and the sound practices outlined in the FERC report. The SDT determined to allow the GO to craft its annual inspection consistently with the onset of cold weather.

Don Stahl - Black Hills Corporation - 3

Answer

Document Name

Comment

comments submitted

Likes 0

Dislikes 0

Response

Brian Evans-Mongeon - Utility Services, Inc. - 4

Answer

Document Name

Comment

Utility Services supports the comments posted by the TAPS group.

Likes 0

Dislikes 0

Response

Please see the SDT's response to TAPS Group.

Neil Shockey - Edison International - Southern California Edison Company - 5

Answer	
Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Kenya Streater - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute”.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT’s response to EEI.	

6. The SDT modified the Implementation Plan to allow twelve (12) months following the effective date to become compliant with EOP-011, IRO-010, and TOP-003. If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

If the RC, TOP, and/or BA are required to include generator design specifications (such as a manufacturer's minimum ambient operating temperature) and/or historical cold-weather performance information in its OPA or RTA or Real-time monitoring as currently proposed, ERCOT would need to develop system changes in order to use such data for all generators because ERCOT presently utilizes minimum design data for only wind and solar resources, some of which are designed to automatically shut down at certain temperatures. These system changes could take several years. If the alternative language ERCOT has proposed in response to Questions 2, 3, or 8 is approved, ERCOT would have no objection to a 12-month (or perhaps shorter) implementation timeline.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis

Answer No

Document Name

Comment

<p>PJM urges immediate implementation with a twelve month period before audibly compliant. At least in the PJM region, generators have already been undertaking these analyses due to our Capacity Performance and Manual requirements.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. There is no rule preventing an entity from implementing cold weather preparedness program(s) earlier than the eighteen (18) months Implementation Plan developed by the SDT.</p>	
<p>Constantin Chitescu - Ontario Power Generation Inc. - 5</p>	
Answer	No
Document Name	
Comment	
<p>OPG concurs with the NPCC Regional Standards Committee's comments.</p>	
Likes	0
Dislikes	0
Response	
<p>Please see the SDT's response to NPCC Standards Committee.</p>	
<p>Erin Green - Western Area Power Administration - 1,6</p>	
Answer	No
Document Name	
Comment	
<p>Support comments by Western Area Power Administration, Sean Erickson, Segment 1.</p>	

Likes	0
Dislikes	0
Response	
Please see the SDT's response to WAPA, Sean Ericson, Segment 1.	
Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey	
Answer	No
Document Name	
Comment	
No, PG&E recommends 18-24 months to implement EOP-011-2 following the effective date. This timeframe will allow the development and implementation of new requirements for the Applicable FEs.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	No
Document Name	
Comment	
12 months may not be enough time for plants to implement cold weather plans, recommend using the phased in approach (i.e. 25% at 12M, 75% at 24M, 100% at 36M)	

Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
BC Hydro's assessment at this time is that the EOP-011 standard implementation would take 24 months from adoption due to initial assessment of equipment specifications.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Larry Rogers - Southern Indiana Gas and Electric Co. - 5	
Answer	No
Document Name	
Comment	

<p>Implementation of currently proposed changes to TOP-003 and EOP-011 would require considerable coordination with interconnected resources, assessment and comparison of current practices to proposed changes, and additional time for training personnel on new processes and procedures. As such, CenterPoint Energy would request a minimum of 24 months to implement the changes.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1</p>	
Answer	No
Document Name	
Comment	
<p>MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>George Brown - Acciona Energy North America - 5</p>	
Answer	No
Document Name	

Comment	
Acciona Energy USA Global, LLC (Acciona) supports the Midwest Reliability Organization NERC Standards Review Forum's (MRO NSRF) comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to MRO NSRF.	
Donna Johnson - Oglethorpe Power Corporation - 5	
Answer	No
Document Name	
Comment	
OPC agrees with the NAGF recommendation that the proposed Implementation Plan be modified to allow for 18-24 months following the effective date to become compliant with EOP-011. This timeframe will allow for development of cold weather plans, procurement/implementation of freeze protection measures, and training of site personnel.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	

Comment	
<p>NV Energy believes that initial planning and maintenance requirements can be initiated following twelve months from the effective date. However, NV Energy believes the implementation plan timeline should take into account required time for corrective actions found during the implementation period, and thus be extended to 18 months.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations</p>	
Answer	No
Document Name	
Comment	
<p>ACES recommends this be pushed to 24 months. Each GO with a BES generator is going to need to review their freeze protection measures (or purchase and install them), develop an annual maintenance and inspection process for those freeze protection measures. Company budget cycles are requested to be measured as a consideration in the time-extension decisions.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>David Hathaway - WEC Energy Group, Inc. - 6</p>	
Answer	No

Document Name	
Comment	
See Tom Breene's comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to Tom Brenne.	
David Jendras - Ameren - Ameren Services - 3	
Answer	No
Document Name	
Comment	
Ameren Agrees with and supports NAGF comments	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to NAGF.	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	No
Document Name	
Comment	

Twelve months to create a plan in compliance with EOP-011 R7 is sufficient, but the SDT should consider an additional 12-24 months for implementation and training.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI	
Answer	No
Document Name	
Comment	
Instead of 12 months 18 months – It takes time to install winterization equipment.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	No
Document Name	
Comment	

Santee Cooper recommends an eighteen (18) month implementation plan allow registered entities the appropriate amount of time to develop the associated cold-weather preparedness plans, develop training materials, and train affected personnel.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Wayne Guttormson - SaskPower - 1	
Answer	No
Document Name	
Comment	
Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	No
Document Name	
Comment	

<p>Implementation of currently proposed changes to TOP-003 and EOP-011 would require considerable coordination with interconnected resources, assessment and comparison of current practices to proposed changes, and additional time for training personnel on new processes and procedures. As such, CEHE would request a minimum of 24 months to implement the changes.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06</p>	
Answer	No
Document Name	
Comment	
<p>Implementation of currently proposed changes to TOP-003 and EOP-011 would require considerable coordination with interconnected resources, assessment and comparison of current practices to proposed changes, and additional time for training personnel on new processes and procedures. As such, Southern Indiana Gas & Electric Company would request a minimum of 24 months to implement the changes.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Larry Heckert - Alliant Energy Corporation Services, Inc. - 4</p>	
Answer	No

Document Name	
Comment	
Alliant Energy supports the comments submitted by the MRO NSRF.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to MRO NSRF.	
Devon Tremont - Taunton Municipal Lighting Plant - 1	
Answer	No
Document Name	
Comment	
The implementation period for EOP-011 should be at least 18 months. Winterization may be a capital-intensive undertaking for some generators, and twelve months may not be enough time for some entities to finance and perform the necessary work. Reliability would be better served by allowing registered entities a bit more time to truly winterize, than by imposing an unrealistic deadline that may lead some entities to water down their plans to avoid being noncompliant.	
Likes 0	
Dislikes 0	
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric	
Answer	No

Document Name	
Comment	
<p>Consistent with the NAGF, DTEE recommends that the proposed Implementation Plan be modified to allow for 18-24 months following the effective date to become compliant with EOP-011. This timeframe will allow for development of cold weather plans, procurement/implementation of freeze protection measures, and training of site personnel.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Matthew Beilfuss - WEC Energy Group, Inc. - 4</p>	
Answer	No
Document Name	
Comment	
<p>Recommend this be pushed to 24 months, this allows the GO time to adopt the preparedness plans, perform activities and train in a managed fashion. Each GO with a BES generator is going to need to review their freeze protection measures (or purchase and install them), develop an Annual maintenance and inspection process for those freeze protection measures (this is noted since there must be GOs who do not have freeze protection measures in place per the past failure to start during cold weather). Budget cycles for most Entities (including GOs) is forecasted one year and purchased the following year. If this remains at the 12 month implementation plan, there may be small GOs with BES generators who may be non-compliant by not having enough time to implement their freeze protection measures or they may “boil down” there freeze protection measures due to “unique factors”.</p>	
Likes	0
Dislikes	0

Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC	
Answer	No
Document Name	
Comment	
Black Hills Corporation Power Delivery department feels that more time would be needed than just 12 months for implementation. Suggest at least 24 months to account for unplanned outages, development of plans, and required training.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le	
Answer	No
Document Name	
Comment	
The implementation period for EOP-011 should be at least 18 months. Winterization will be a capital-intensive undertaking for our generators in Florida, and twelve months may not be enough time for our agency to finance and perform the necessary work. Reliability would be better served by allowing registered entities a bit more time to truly winterize, than by imposing an unrealistic deadline that may lead some entities to water down their plans to avoid being non-compliant.	

Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	No
Document Name	
Comment	
A 12-month implementation seems reasonable. However, given the current concerns, it may be prudent to have a staggered implementation plan with high priority items be completed within the proposed 12-month implementation period. Considering “weather plans” should already exist having a staggered timeframe may be feasible.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	

This is not enough time to implement. Two or three years would be achievable.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Rebecca Baldwin - Transmission Access Policy Study Group - NA - Not Applicable - NA - Not Applicable	
Answer	No
Document Name	
Comment	
The implementation period for EOP-011 should be at least 18 months. Winterization may be a capital-intensive undertaking for some generators, and twelve months may not be enough time for some entities to finance and perform the necessary work. Reliability would be better served by allowing registered entities a bit more time to truly winterize, than by imposing an unrealistic deadline that may lead some entities to water down their plans to avoid being noncompliant.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF	
Answer	No
Document Name	

Comment

The NAGF recommends that the proposed Implementation Plan be modified to allow for 18-24 months following the effective date to become compliant with EOP-011. This timeframe will allow for development of cold weather plans, procurement/implementation of freeze protection measures, and training of site personnel.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Brian Evans-Mongeon - Utility Services, Inc. - 4

Answer

No

Document Name

Comment

Utility Services supports the comments posted by the TAPS group.

Likes 0

Dislikes 0

Response

Please see the SDT's response to the TAPS Group.

Dennis Sismaet - Northern California Power Agency - 6

Answer

No

Document Name

Comment

A more appropriate implementation plan timeline might be two-three years depending on cost and potential work load GO/GOPs project for this new FERC/NERC mandated project and other regulatory agency existing/proposed obligations. In addition, time is needed to budget and obtain approvals for new capital investment dollars (labor/material) and new positions to meet new requirements.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1

Answer

No

Document Name

Comment

ACES recommends this be pushed to 24 months. Each GO with a BES generator is going to need to review their freeze protection measures (or purchase and install them), develop an annual maintenance and inspection process for those freeze protection measures. Company budget cycles are requested to be measured as a consideration in the time-extension decisions.

AEPCO is signing on to ACES comments as well.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Thomas Breene - WEC Energy Group, Inc. - 3

Answer	No
Document Name	
Comment	
<p>Recommend this be 24 months, this allows the GO time to adopt the preparedness plans, perform activities and train in a managed fashion. Each GO with a BES generator is going to need to review their freeze protection measures (or purchase and install them), develop an Annual maintenance and inspection process for those freeze protection measures (this is noted since there must be GOs who do not have freeze protection measures in place per the past failure to start during cold weather). Budget cycles for most Entities (including GOs) is forecasted one year and purchased the following year. If this remains at the 12 month implementation plan, there may be small GOs with BES generators who may be non-compliant by not having enough time to implement their freeze protection measures or they may “boil down” there freeze protection measures due to “unique factors”.</p>	
Likes 1	WEC Energy Group, Inc., 5, OBrien Janet
Dislikes 0	
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
Ballard Mutters - Orlando Utilities Commission - 3	
Answer	No
Document Name	
Comment	
<p>Winterization may be a capital-intensive undertaking for some generators, and twelve months may not be enough time for some entities to finance and perform the necessary work. Reliability would be better served by allowing registered entities a bit more time to truly winterize, than by imposing an unrealistic deadline that may lead some entities to water down their plans to avoid being noncompliant.</p> <p>A 36-month implementation schedule would be more reasonable.</p>	

Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Dania Colon - Orlando Utilities Commission - 5</p>	
Answer	No
Document Name	
Comment	
<p>Please clarify the purpose of EOP-011 R7. If it is to require the generator owner to add new equipment to their plants to increase the cold weather preparedness then at least 36 Months would be a more appropriate time duration. If the requirement is just about formally determining the units existing capability and maintaining that capability thn 12 months is a sufficient time frame.</p> <p>Winterization may be a capital-intensive undertaking for some generators, and twelve months may not be enough time for some entities to finance and perform the necessary work. Reliability would be better served by allowing registered entities a bit more time to truly winterize, than by imposing an unrealistic deadline that may lead some entities to water down their plans to avoid being noncompliant.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF</p>	
Answer	No
Document Name	

Comment

Recommend this be pushed to 24 months. Each GO with a BES generator is going to need to review their freeze protection measures (or purchase and install them), develop an Annual maintenance and inspection process for those freeze protection measures (this is noted since there must be GOs who do not have freeze protection measures in place per the past failure to start during cold weather). Budget cycles for most Entities (including GOs) are forecasted one year and purchased the following year. If this remains at the 12-month implementation plan, there may be small GOs with BES generators who may be non-compliant by not having enough time to implement their freeze protection measures or they may “boil down” their freeze protection measures due to “unique factors”.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Michael Brytowski - Great River Energy - 3

Answer

No

Document Name

Comment

GRE supports the comments of the NSRF

Likes 0

Dislikes 0

Response

Please see the SDT’s response to NSRF.

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	No
Document Name	
Comment	
<p>A more appropriate implementation plan timeline might be two-three years depending on cost and potential work load GO/GOPs project for this new FERC/NERC mandated project and other regulatory agency existing/proposed obligations. In addition, time is needed to budget and obtain approvals for new capital investment dollars (labor/material) and new positions to meet new requirements.</p>	
Likes	0
Dislikes	0
Response	
<p>Thank you for your comment. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
Richard Jackson - U.S. Bureau of Reclamation - 1	
Answer	No
Document Name	
Comment	
<p>An implementation period of 12 months may be restrictive to Facilities that have large footprints with long procurement processes, such as federal entities. Reclamation recommends a 24-month implementation period for EOP-011, IRO-010, and TOP-003 to account for necessary research, development, and procurement needs. At a minimum, the implementation period should be 24 months for EOP-011 because Generator Owners have never had to comply with this standard before.</p>	
Likes	0
Dislikes	0
Response	

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer No

Document Name

Comment

Alternative - Duke Energy recommends a 24-month implementation period to allow for drafting of the plans, training, and development of the required maintenance work orders.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Glen Farmer - Avista - Avista Corporation - 5

Answer No

Document Name

Comment

This is not enough time to implement. Two or three years would be achievable.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Erick Barrios - New York Power Authority - 6

Answer No

Document Name

Comment

Instead of 12 months implement an 18 month or 24-month plan

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to Reclamation.

Marty Hostler - Northern California Power Agency - 5

Answer	No
Document Name	
Comment	
<p>NO. A more appropriate implementation plan timeline might be two-three years depending on cost and potential work load GO/GOPs project for this new FERC/NERC mandated project and other regulatory agency existing/proposed obligations. In addition, time is needed to budget and obtain approvals for new capital investment dollars (labor/material) and new positions to meet new requirements.</p>	
Likes 0	
Dislikes 0	
Response	
<p>In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p>	
<p>Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power</p>	
Answer	No
Document Name	
Comment	
<p>As noted in Tacoma Power’s comments to Question 1, instead of specifying a Standard Implementation Plan timeline, each GO should perform a vulnerability assessment and then develop CAPs with appropriate implementation timelines.</p>	
Likes 2	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott; Snohomish County PUD No. 1, 3, Chaney Holly
Dislikes 0	

Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6	
Answer	No
Document Name	
Comment	
<i>Considering the scope of this project which covers 3 standards the Implementation Plan should be extended to 24 months.</i>	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Tyson Archie - Platte River Power Authority - 5	
Answer	No
Document Name	
Comment	
Platte River Power Authority suggests an eighteen (18) month implementation plan to provide enough specificity for an industry wide standard. An 18-month implementation plan allows registered entities the appropriate amount of time to develop the associated cold-weather preparedness plans, develop training materials, and train affected personnel, as well as allows for cold-weather training to potentially be aligned with other required training at generation sites.	
Likes	1
	Platte River Power Authority, 3, Kiess Wade

Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Thomas Foltz - AEP - 5	
Answer	No
Document Name	
Comment	
While 12 months may be sufficient for some of the proposed obligations regarding preparedness itself, we do not believe it would be sufficient to accommodate all the various impacts related to operations. We believe 24 months would be more appropriate, and would allow entities the time necessary to develop the required documentation, including those related to communications.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1	
Answer	No
Document Name	
Comment	
For those generators that are located in cold climates and operate regularly in freezing weather, this standard will be a unnecessary administrative series of tasks. The Cold Weather Preparedness should be limited to those locations where cold weather operations is not	

frequent. Despite the recent problems in Texas, Generations in Northern climates continues to be reliable. Perhaps the standard needs to put the burden on Planning Coordinators to identify generators that are of high risk, and require Cold Weather preparedness from them, excluding others.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Laura Nelson - IDACORP - Idaho Power Company - 1

Answer

No

Document Name

Comment

A 12-month implementation does not allow enough time for adequate compliance. A minium of 36 months would be more adequate and would fall in line with other new requirements implemented in the past. It would take a minimum of 3 years to get this type of new program off the ground effectively.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Dylan Sontag - Silicon Ranch Corporation - 1 - SERC

Answer

No

Document Name

Comment	
The implementation plan could be replaced by a cold weather operations report due 12 months following the effective date which would detail any unique cold weather operations.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. A fact report(s) would not satisfy the Cold Weather preparedness directives assigned by NERC board.	
Aaron Staley - Orlando Utilities Commission - 1	
Answer	Yes
Document Name	
Comment	
Assuming the EOP-011 is not attempting to change a facilities cold weather design but is just requiring clarification and maintenance of that capability the 12 months should be sufficient.	
Likes	0
Dislikes	0
Response	
Your assumption is correct. In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Jamie Johnson - California ISO - 2	
Answer	Yes
Document Name	
Comment	

CAISO agrees with comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to the ISO/RTO Counsel (IRC) Standards Review Committee.	
Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)	
Answer	Yes
Document Name	
Comment	
The SDT should consider ways to expedite the implementation and effective date of the data specification requirements so that they can be in place prior to the next winter season following FERC approval. The Implementation Plan can be structured such that there are longer lead times for asset owners to meet the freeze protection measure requirements and preparedness plans; however, the ERO Enterprise should seek ways to inform the industry to begin preparations immediately after the Ballot Body approves the requirements.	
Likes	0
Dislikes	0
Response	
There is no rule preventing an entity from implementing cold weather preparedness program(s) earlier than the eighteen (18) months Implementation Plan developed by the SDT	
Bobbi Welch - Midcontinent ISO, Inc. - 2	
Answer	Yes
Document Name	
Comment	

MISO supports the IRC SRC comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon supports the proposed 12-month Implementation Plan.	
On Behalf of Exelon, Segments: 1, 3, 5, 6	
Likes	0
Dislikes	0
Response	
There is no rule preventing an entity from implementing cold weather preparedness program(s) earlier than the eighteen (18) months Implementation Plan developed by the SDT.	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	

Issue is with EOP-011 (R 7.3) the items that is asked in this requirement needs clarification. Ambiguous for the Generations site to complete. Also, in this standard they are asking for five years of previous data which will be hard to retrieve.	
Likes	0
Dislikes	0
Response	
The entity may use original design data, five years of operational data, or engineering to establish cold weather operating limits.	
Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
EEI supports the proposed 12-month Implementation Plan.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.	
Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb	
Answer	Yes
Document Name	
Comment	

Energy supports and incorporates by reference Edison Electric Institute’s response to Question 6.	
Likes	0
Dislikes	0
Response	
Please see the SDT’s response to EEI Question 6.	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	Yes
Document Name	
Comment	
Texas RE appreciates the SDT developing the language for initial performance not only for the reliability benefits but also for oversight clarification that often gets overlooked.	
Likes	0
Dislikes	0
Response	
Thank you for your compliant. The SDT really appreciates the acknowledgement.	
Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	Yes
Document Name	
Comment	
Yes, Southern Company believes that 12 months is sufficient time to ensure compliance with the new requirements.	

Likes	0
Dislikes	0
Response	
<p>In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.</p> <p>There is no rule preventing an entity from implementing cold weather preparedness program(s) earlier than the eighteen (18) months Implementation Plan developed by the SDT.</p>	
Leonard Kula - Independent Electricity System Operator - 2	
Answer	Yes
Document Name	
Comment	
N/A.	
Likes	0
Dislikes	0
Response	
<p>Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne</p>	
Answer	Yes
Document Name	
Comment	
<p>The SDT should consider ways to expedite the implementation and effective date of the data specification requirements so that they can be in place prior to the next winter season following FERC approval. The Implementation Plan can be structured such that there are</p>	

longer lead times for asset owners to meet the freeze protection measure requirements and preparedness plans; however, the ERO Enterprise should seek ways to inform the industry to begin preparations immediately after the Ballot Body approves the requirements

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

There is no rule preventing an entity from implementing cold weather preparedness program(s) earlier than the eighteen (18) months Implementation Plan developed by the SDT.

Donald Lock - Talen Generation, LLC - 5

Answer Yes

Document Name

Comment

Talen recommends that the proposed Implementation Plan be modified to allow for 18-24 months following the effective date to become compliant with EOP-011. This timeframe will allow for development of cold weather plans, procurement/implementation of freeze protection measures, and training of site personnel.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed the Implementation Plan to allow eighteen (18) months following the effective date to become compliant with EOP-011, IRO-010 and TOP-003.

Jun Hua - Austin Energy - 4

Answer Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Gladys DeLaO - CPS Energy - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Glenn Pressler - CPS Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	
Answer	Yes
Document Name	

Comment	
Likes 0	
Dislikes 0	
Response	
Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Teresa Cantwell - Lower Colorado River Authority - 5	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Anthony Jablonski - ReliabilityFirst - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Marcus Bortman - APS - Arizona Public Service Co. - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Scott McGough - Georgia System Operations Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority	
Answer	Yes
Document Name	
Comment	
Likes	1
Dislikes	0
Response	
Julie Hall - Entergy - 6, Group Name Entergy	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Dan Roethemeyer - Vistra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 1	Xcel Energy, Inc., 1,3,5,6, Casuscelli Amy
Response	
John Allen - City Utilities of Springfield, Missouri - 1,3,4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kristina Marriott - First Solar, Inc. - 5	
Answer	Yes
Document Name	

Comment	
Likes 0	
Dislikes 0	
Response	
Janet OBrien - WEC Energy Group, Inc. - 5	
Answer	
Document Name	
Comment	
Support comments submitted by Tom Breene of WEC Energy Group.	
Likes 0	
Dislikes 0	
Response	
Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute”.	
Likes 0	

Dislikes 0	
Response	
Neil Shockey - Edison International - Southern California Edison Company - 5	
Answer	
Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Don Stahl - Black Hills Corporation - 3	
Answer	
Document Name	
Comment	
comments submitted	
Likes 0	
Dislikes 0	
Response	

Bruce Reimer - Manitoba Hydro - 1	
Answer	
Document Name	
Comment	
Not applicable	
Likes 0	
Dislikes 0	
Response	

7. Proposed TOP-003-5 Requirement R1 and IRO-010-4 Requirement R1 would require TOPs and Reliability Coordinator to maintain cold weather parameter. For consistency with the data specification requirements and to ensure the BA has the necessary information to perform its analysis during cold weather, do you believe that similar parameters should be required? Please provide your reasoning as to why it should be required or should not be required.

Dylan Sontag - Silicon Ranch Corporation - 1 - SERC

Answer No

Document Name

Comment

There are no specific cold weather parameters that would be provided for our solar facilities regarding how they will operate differently as they do not operate any differently.

Likes 0

Dislikes 0

Response

Thank you for your information.

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA supports Reclamation's comments.

Likes 0

Dislikes	0
Response	
Please see the SDT's response to Reclamation.	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	No
Document Name	
Comment	
<p>This will create a significant amount of work, both real and administrative. There is no history of the type of event causing a supply issue in the Northwest. The Southwest has experienced this (2011). This project is a result of the report on the 2018 South Central US weather event report, attached for your convenience. Not sure this has ever been an issue in areas that normally experience cold. It has obviously been an issue in areas that are typically mild, and experienced very unusual cold.</p>	
Likes	0
Dislikes	0
Response	
<p>The SDT understands and appreciates your concerns. As explained in previous responses to industry comments, the extensiveness of each entity's cold weather preparation plan would be based on their specific geographic area and past cold weather experiences. Also, for those generators that regularly operate in freezing weather, it is assumed that although a formal cold weather preparation plan may not have been established, these facilities already implement the necessary practices to ensure winter readiness.</p>	
Richard Jackson - U.S. Bureau of Reclamation - 1	
Answer	No
Document Name	
Comment	
<p>It is not clear what parameters are required or are being compared.</p>	

Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5, Requirements and Measures R1; and IRO-010-4 Requirements R1 to provide consistency and clarity.	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
This question is not clear. Proposals do not require the TOP or RC to maintain a/any Cold Weather parameter(s), i.e. keep/preserve any parameter/data. Proposed modifications do require RCs/TOPs to maintain a data specification that has a provision for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, whether or not RC/TOPs are going to us the data.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5, Requirements and Measures R1; and IRO-010-4 Requirements R1 to provide consistency and clarity.	
Dania Colon - Orlando Utilities Commission - 5	
Answer	No
Document Name	
Comment	

TOP 003 R2 already allows the BA to request this data if needed, and EOP-011 requires the BA to plan for cold weather. It is not necessary to add a specific sub part under R2 to address cold weather data to the BA.

In Florida, a single weather parameter does not reflect the geographical reality of the State where a temperature gradient is the norm; the northern part could be 15 to 20 degrees cooler than the central part of it. The south Florida temperature could even be another 10 degrees warmer than Central Florida. In turn, each BA should be responsible for maintaining their own cold weather parameter like they do today for unit commitment and dispatching. The RC should be aware of any deviation considered to be an “Extreme Weather Event”.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5, Requirements and Measures R2; and IRO-010-4 Requirements R1 to provide consistency and clarity.

Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1

Answer

No

Document Name

Comment

This language leads one to believe that every TOP and every RC will maintain its own “cold weather parameter,” which is a term that has not been defined, and according to this language could lead to many different “cold weather parameters” across the country. Many entities participate in multiple regions and could be forced to comply with multiple “cold weather parameters,” which could create a cost and compliance burden. “Cold weather,” “extreme weather conditions,” and “cold weather conditions” should be clearly defined using an objective measure nationwide. ACES suggests using a basis of/from the NOAA Extreme Weather events, which are based on regional climate centers, statistical models, and scientific data.

AEPCO is signing on to ACES comments as well.

Likes 0

Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Dennis Sismaet - Northern California Power Agency - 6	
Answer	No
Document Name	
Comment	
This question is not clear. Proposals do not require the TOP or RC to maintain a/any Cold Weather parameter(s), i.e. keep/preserve any parameter/data. Proposed modifications do require RCs/TOPs to maintain a data specification that has a provision for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, whether or not RC/TOPs are going to us the data.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
This will create a significant amount of work, both real and administrative. There is no history of the type of event causing a supply issue in the Northwest. The Southwest has experienced this (2011). This project is a result of the report on the 2018 South Central US weather	

event. Not sure this has ever been an issue in areas that normally experience cold. It has obviously been an issue in areas that are typically mild and experienced very unusual cold.

Likes 0

Dislikes 0

Response

The SDT understands and appreciates your concerns. As explained in previous responses to industry comments, the extensiveness of each entity’s cold weather preparation plan would be based on their specific geographic area and past cold weather experiences. Also, for those generators that regularly operate in freezing weather, it is assumed that although a formal cold weather preparation plan may not have been established, these facilities already implement the necessary practices to ensure winter readiness.

Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE

Answer

No

Document Name

Comment

OGE believes that the proposed changes to TOP-003 R1 (for the TOP) are not necessary. The NERC Functional Model identifies the TOP as responsible for the Real-time operating reliability of the transmission assets under its control; not the keeper of Generator extreme weather parameters. As such, the TOP function was not mentioned in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018."

As for the question on whether modifications to TOP-003 R2 (for the BA) are required to obtain cold weather parameter, we believe that it is unnecessary given R2 already includes language to specify "the data necessary for it to perform its analysis functions and Real-time monitoring" and Requirement 5 requires all applicable entities to provide the specified data.

The TOP's Emergency Plans should be focused on maintaining the reliability of the Transmission System and responding to Operating Instructions from the BA and the RC, consistent with Recommendation 5 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018." Part of the language from Recommendation 5: *Balancing Authorities and Transmission Operators should conduct periodic capacity and energy emergency drills simultaneous with transmission emergency drills with their*

Reliability Coordinators, to ensure readiness, coordination of control room personnel to conduct multiple load-shed-related tasks while continuing to maintain situational awareness, and coordination between additional local control center and field personnel.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations

Answer

No

Document Name

Comment

This language leads one to believe that every TOP and every RC will maintain its own “cold weather parameter,” which is a term that has not been defined, and according to this language could lead to many different “cold weather parameters” across the country. Many entities participate in multiple regions and could be forced to comply with multiple “cold weather parameters,” which could create a cost and compliance burden. “Cold weather,” “extreme weather conditions,” and “cold weather conditions” should be clearly defined using an objective measure nationwide. ACES suggests using a basis of/from the NOAA Extreme Weather events, which are based on regional climate centers, statistical models, and scientific data.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5	
Answer	No
Document Name	
Comment	
<p>OKGE believes that the proposed changes to TOP-003 R1 (for the TOP) are not necessary. The NERC Functional Model identifies the TOP as responsible for the Real-time operating reliability of the transmission assets under its purview; not the keeper of Generator extreme weather parameters. As such, the TOP function was not mentioned in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018."</p> <p>As for the question on whether modifications to TOP-003 R2 (for the BA) are required to obtain cold weather parameter, we believe that it is unnecessary given R2 already includes language to specify "the data necessary for it to perform its analysis functions and Real-time monitoring" and Requirement 5 requires all applicable entities to provide the specified data.</p> <p>The TOP's Emergency Plans should be focused on maintaining the reliability of the Transmission System and responding to Operating Instructions from the BA and the RC, consistent with Recommendation 5 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018." Part of the language from Recommendation 5: <i>Balancing Authorities and Transmission Operators should conduct periodic capacity and energy emergency drills simultaneous with transmission emergency drills with their Reliability Coordinators, to ensure readiness, coordination of control room personnel to conduct multiple load-shed-related tasks while continuing to maintain situational awareness, and coordination between additional local control center and field personnel.</i></p>	
Likes	0
Dislikes	0
Response	
<p>In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.</p>	
Erin Green - Western Area Power Administration - 1,6	
Answer	No

Document Name	
Comment	
Support comments by Western Area Power Administration, Sean Erickson, Segment 1.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to WAPA, Sean Erickson, Segment 1.	
Glenn Pressler - CPS Energy - 3	
Answer	No
Document Name	
Comment	
The proposed changes to TOP-003 R1 (for the TOP) are not necessary. The TOP is responsible for reliability of the transmission assets under its control; not Generator extreme weather parameters. Also not clear how this will help prevent the Texas 2021 event and agree with other's that the TOP function was not mentioned in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018."	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Gladys DeLaO - CPS Energy - 1	

Answer	No
Document Name	
Comment	
<p>The proposed changes to TOP-003 R1 (for the TOP) are not necessary. The TOP is responsible for reliability of the transmission assets under its control; not Generator extreme weather parameters. Also, not clear how this will help prevent the Texas 2021 event and agree with other's that the TOP function was not mentioned in Recommendation 1 of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018."</p>	
Likes 0	
Dislikes 0	
Response	
<p>In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.</p>	
<p>Aaron Staley - Orlando Utilities Commission - 1</p>	
Answer	No
Document Name	
Comment	
<p>I don't believe it is necessary to include the language in TOP-003. EOP-011 requires the BA to plan for cold weather. TOP-003 is to ensure the BA can receive the data it needs and TOP-003 R2 allows the BA to ask for data in addition to the existing sub-parts of R2. TOP-003 purpose does not include prescribing to the BA what data they need, but ensuring they have access to the data they determine they need.</p>	
Likes 0	
Dislikes 0	
Response	

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
John Allen - City Utilities of Springfield, Missouri - 1,3,4	
Answer	Yes
Document Name	
Comment	
The BA is responsible for establishing the next-day dispatch plan and this information would be necessary for them to know which resources are capable to be online during a cold weather event.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne	
Answer	Yes
Document Name	
Comment	
A Balancing Authority is “The responsible entity that integrates resource plans ahead of time, maintains Demand and resource balance within a Balancing Authority Area, and supports Interconnection frequency in real time.” and, as such, have a need for this information.	
Likes	0
Dislikes	0
Response	

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Thomas Foltz - AEP - 5

Answer Yes

Document Name

Comment

Yes, we believe an equivalent of TOP-003's R1.3 should be added to R2 within this standard, pertaining to the BA.

Likes 1 Associated Electric Cooperative, Inc., 3, Bennett Todd

Dislikes 0

Response

Thank You

Todd Bennett - Associated Electric Cooperative, Inc. - 3

Answer Yes

Document Name

Comment

Yes, an equivalent of TOP-003's R1.3 should be added to R2 within this standard, pertaining to the BA.

Likes 0

Dislikes 0

Response

Yes, an equivalent of TOP-003's R1.3 should be added to R2 within this standard, pertaining to the BA.

Bruce Reimer - Manitoba Hydro - 1

Answer	Yes
Document Name	
Comment	
The BA would also need to recognize the parameters, limits, constraints so that they can plan and posture for cold weather operation.	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	Yes
Document Name	
Comment	
The impact of cold weather event could impact BAs as much as the RCs and TOPs. Therefore BAs should also be aware of potential problems with generation not being able to perform due to cold weather and adding a similar requirement to standards for BAs as is proposed for RCs and TOPs would be prudent.	
Likes 0	
Dislikes 0	
Response	
Thank You	
Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC	
Answer	Yes

Document Name	
Comment	
Similar to what Seattle has discussed above, we recommend that the parameters to be collected and maintained should focus on abnormally cold weather, rather than cold weather in general (to which more than half the continent is subject each year).	
Likes 0	
Dislikes 0	
Response	
Thank You	
Leonard Kula - Independent Electricity System Operator - 2	
Answer	Yes
Document Name	
Comment	
N/A.	
Likes 0	
Dislikes 0	
Response	
Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	Yes
Document Name	
Comment	

Southern Company believes that TOP-003-5 R2 should be modified to match R1 to ensure consistency.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer Yes

Document Name

Comment

Reasoning - Applicable BA and TOP could be separate registered entities.

Likes 0

Dislikes 0

Response

Correct, Thank You

Michael Brytowski - Great River Energy - 3

Answer Yes

Document Name

Comment

GRE supports the comments of the NSRF

Likes	0
Dislikes	0
Response	
Please see the SDT's response to NSRF.	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	Yes
Document Name	
Comment	
Texas RE recommends similar parameters be applied to the BA. The BA needs awareness to develop a more complete analysis of projected conditions. Without that awareness, a BA could be not as prepared for its responsibilities to balance generation and load during operations (as has been exhibited during the cold weather events driving these changes.) Texas RE supports changes to TOP-003-5 R2 to match that of R1 to allow all significant parties responsible for Reliable Operations to have the appropriate information to make informed decisions.	
Likes	0
Dislikes	0
Response	
Please see the modifications made to the standard.	
Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority	
Answer	Yes
Document Name	
Comment	
Balancing Authority data specification requirements should be within TOP-003 Requirement R2.	

Likes 1	Tennessee Valley Authority, 5, Thomas M Lee
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5, Requirements and Measures R2 to provide consistency and clarity.	
Brian Evans-Mongeon - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Utility Services supports the comments posted by the TAPS group.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to the TAPS Group.	
Rebecca Baldwin - Transmission Access Policy Study Group - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
As noted in response to Question 4, the BA data specification requirement should be consistent with the TOP and RC requirements.	
Likes 0	
Dislikes 0	

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le

Answer Yes

Document Name

Comment

The BA data specification requirement should be consistent with the TOP and RC requirements.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer Yes

Document Name

Comment

Yes, seems this is even more critical to the BA since this cold weather project is focused mostly on generation, directly related to balancing.

However, Black Hills Corporation believes “cold weather parameters” requires further definition - this could be interpreted differently by industries based on location.

Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Devon Tremont - Taunton Municipal Lighting Plant - 1	
Answer	Yes
Document Name	
Comment	
As noted in response to Question 4, the BA data specification requirement should be consistent with the TOP and RC requirements.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Marcus Bortman - APS - Arizona Public Service Co. - 6	
Answer	Yes
Document Name	
Comment	
AZPS agrees that there is BA applicability.	
Likes	0
Dislikes	0

Response	
Thank you.	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06	
Answer	Yes
Document Name	
Comment	
<p>The cold weather parameters of generating units are imperative for BAs to understand and incorporate into their analyses. Limitations on generating units imposed by severe cold weather would impact a BA's ability to execute its function of maintaining the load-generation balance within the BA Area. Establishing specifications for minimum historical performance during cold weather and expected operational limitations due to projected cold weather would assist the BA in its existing requirements under EOP-011 R2.2.3.</p> <p>Additionally, Recommendation 1 in the 2019 FERC and NERC Staff Report identifies the need for Balancing Authorities and Reliability Coordinators to be aware of specific generating units' limitations, such as ambient temperatures beyond which they cannot be expected to perform or lack of firm gas transportation, and take such limitations into account in their operating processes to determine contingency reserves, and in performing operational planning analyses, respectively.</p> <p>Furthermore, Recommendations 2, 3, and 4 of Project 2019-06 Implementation Plan and the Project Purpose apply to BAs and require that they have similar data specification requirements.</p>	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather	
Answer	Yes
Document Name	

Comment

The cold weather parameters of generating units are imperative for BAs to understand and incorporate into their analyses. Limitations on generating units imposed by severe cold weather would impact a BA's ability to execute its function of maintaining the load-generation balance within the BA Area. Establishing specifications for minimum historical performance during cold weather and expected operational limitations due to projected cold weather would assist the BA in its existing requirements under EOP-011 R2.2.3. Additionally, Recommendation 1 in the 2019 FERC and NERC Staff Report identifies the need for Balancing Authorities and Reliability Coordinators to be aware of specific generating units' limitations, such as ambient temperatures beyond which they cannot be expected to perform or lack of firm gas transportation, and take such limitations into account in their operating processes to determine contingency reserves, and in performing operational planning analyses, respectively. Furthermore, Recommendations 2, 3, and 4 of this Project 2019-06 Implementation Plan, and the very purpose of this Project apply to BAs and require that they have similar data specification requirements.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Wayne Guttormson - SaskPower - 1

Answer

Yes

Document Name

Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.

Likes 0

Dislikes 0

Response

Thank You. Please see the SDT's response to MRO NSRF.	
Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb	
Answer	Yes
Document Name	
Comment	
Evergy supports and incorporates by reference Edison Electric Institute's response to Question 7.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to EEI.	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI	
Answer	Yes
Document Name	
Comment	
The Balancing Authority should have a similar requirement for consistency and to perform its analysis during cold weather.	
Likes	0
Dislikes	0
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	

Answer	Yes
Document Name	
Comment	
Similar requirements for parameters consistent with those contained in R1 of TOP-003 and IRO-010 should be contained within R2 of TOP-003 to ensure the BA has the necessary cold weather data to perform their operational and planning responsibilities.	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Amy Casuscelli - Xcel Energy, Inc. - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
The BA has a need for this information to perform their responsibilities.	
Likes 0	
Dislikes 0	
Response	
Thank You. In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
George Brown - Acciona Energy North America - 5	

Answer	Yes
Document Name	
Comment	
Based on the NERC Reliability Function Model and the tasks that a Balancing Authority (BA) completes, yes, BAs should also be required to maintain cold weather parameters consistent with the Transmission Operator and Reliability Coordinator.	
Likes 0	
Dislikes 0	
Response	
Thank You. In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Larry Rogers - Southern Indiana Gas and Electric Co. - 5	
Answer	Yes
Document Name	
Comment	
The cold weather parameters of generating units are imperative for BAs to understand and incorporate into their analyses. Limitations on generating units imposed by severe cold weather would impact a BA's ability to execute its function of maintaining the load-generation balance within the BA Area. Establishing specifications for minimum historical performance during cold weather and expected operational limitations due to projected cold weather would assist the BA in its existing requirements under EOP-011 R2.2.3. Additionally, Recommendation 1 in the 2019 FERC and NERC Staff Report identifies the need for Balancing Authorities and Reliability Coordinators to be aware of specific generating units' limitations, such as ambient temperatures beyond which they cannot be expected to perform or lack of firm gas transportation, and take such limitations into account in their operating processes to determine contingency reserves, and in performing operational planning analyses, respectively. Furthermore, Recommendations 2, 3, and 4 of this Project 2019-06 Implementation Plan, and the very purpose of this Project apply to BAs and require that they have similar data specification requirements.	

Likes	0
Dislikes	0
Response	
Thank You. In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	Yes
Document Name	
Comment	
BA functional entity would require similar weather information to what the TOP would, as the BA too performs a similar analysis and Real-time monitoring in Operations Planning Horizon.	
Likes	0
Dislikes	0
Response	
Thank You. In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon concurs with the EEI comments to Question 7.	
On Behalf of Exelon, Segments: 1, 3, 5, 6	

Likes	0
Dislikes	0
Response	
Please see the SDT's response to EEI.	
Bobbi Welch - Midcontinent ISO, Inc. - 2	
Answer	Yes
Document Name	
Comment	
MISO supports the IRC SRC comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	
Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey	
Answer	Yes
Document Name	
Comment	
Yes, PG&E generally supports maintaining cold weather parameters. Additionally, the reference to cold weather parameters may be better aligned with EOP-011-2 by adding extreme weather parameters as well.	
Likes	0
Dislikes	0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)

Answer Yes

Document Name

Comment

A Balancing Authority is “The responsible entity that integrates resource plans ahead of time, maintains Demand and resource balance within a Balancing Authority Area, and supports Interconnection frequency in real time.” and, as such, have a need for this information.

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Jamie Johnson - California ISO - 2

Answer Yes

Document Name

Comment

CAISO agrees with comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee.

Likes 0

Dislikes 0

Response

Please see the SDT's response to ISO/RTO Counsel.	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
OPG concurs with the NPCC Regional Standards Committee's comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to NPCC Regional Standards Committee.	
Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis	
Answer	Yes
Document Name	
Comment	
PJM supports the IRC SRC comments.	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	
Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2	

Answer	Yes
Document Name	
Comment	
ERCOT believes that the BA needs information about generator capability and availability in cold weather; however, ERCOT believes it may be better to state this more directly as a new obligation on the GOP in EOP-011 than as an obligation on RCs and BAs in IRO-010 and TOP-003. As discussed in ERCOT's response to Question 8, the BA, and not the RC, is the appropriate recipient of that information.	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Kristina Marriott - First Solar, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Gul Khan - Gul Khan On Behalf of: Lee Maurer, Oncor Electric Delivery, 1; - Oncor Electric Delivery - 1 - Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Tyson Archie - Platte River Power Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Patricia Lynch - NRG - NRG Energy, Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Erick Barrios - New York Power Authority - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Julie Hall - Entergy - 6, Group Name Entergy	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Thomas Breene - WEC Energy Group, Inc. - 3	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Scott McGough - Georgia System Operations Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Justin Welty - NextEra Energy - Florida Power and Light Co. - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Matthew Beilfuss - WEC Energy Group, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Aidan Gallegos - PNM Resources - Public Service Company of New Mexico - 1,3	
Answer	Yes
Document Name	

Comment	
Likes	0
Dislikes	0
Response	
James Baldwin - Lower Colorado River Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Anthony Jablonski - ReliabilityFirst - 10	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	

Teresa Cantwell - Lower Colorado River Authority - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Larry Heckert - Alliant Energy Corporation Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
David Hathaway - WEC Energy Group, Inc. - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Kevin Salsbury - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Johnson - Oglethorpe Power Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1	
Answer	Yes
Document Name	
Comment	

Likes	0
Dislikes	0
Response	
Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
W. Dwayne Preston - Austin Energy - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Dillard - Austin Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes	0
Response	
Jun Hua - Austin Energy - 4	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
Response	
Donald Lock - Talen Generation, LLC - 5	
Answer	
Document Name	
Comment	
Talen has no comments.	
Likes	0
Dislikes	0
Response	
Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6	

Answer	
Document Name	
Comment	
<i>The parameters for the BA should be similar to the TOP. However BA data specification requirements for NIPSCO would likely be covered by MISO via CFR00001</i>	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	
Marty Hostler - Northern California Power Agency - 5	
Answer	
Document Name	
Comment	
This question is not clear. Proposals do not require the TOP or RC to maintain a/any Cold Weather parameter(s), i.e. keep/preserve any parameter/data. Proposed modifications do require RCs/TOPs to maintain a data specification that has a provision for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, whether or not RC/TOPs are going to us the data.	
Likes 0	
Dislikes 0	
Response	
In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.	

Don Stahl - Black Hills Corporation - 3	
Answer	
Document Name	
Comment	
comments submitted	
Likes 0	
Dislikes 0	
Response	
Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF	
Answer	
Document Name	
Comment	
The NAGF has no comments.	
Likes 0	
Dislikes 0	
Response	
Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric	
Answer	
Document Name	

Comment

DTEE would like to abstain with no comments

Likes 0

Dislikes 0

Response

Neil Shockey - Edison International - Southern California Edison Company - 5

Answer

Document Name

Comment

SCE supports EEI's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to EEI.

Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC

Answer

Document Name

Comment

No Comment

Likes 0	
Dislikes 0	
Response	
David Jendras - Ameren - Ameren Services - 3	
Answer	
Document Name	
Comment	
Ameren Agrees with and supports NAGF comments	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to NAGF.	
Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6	
Answer	
Document Name	
Comment	
See comments submitted by Edison Electric Institute".	
Likes 0	
Dislikes 0	

Response

Please see the SDT's response to EEI.

8. Please provide any additional comments for the SDT to consider, if desired.

Brandon Gleason - Electric Reliability Council of Texas, Inc. - 2

Answer

Document Name

Comment

ERCOT believes the GOP is the most appropriate provider of information about generator capability and availability during cold weather, and that the appropriate direct recipient of such information is the BA and TOP—not the RC. The BA is already required to have an operating plan and communicate the operating plan to its RC under TOP-002, Requirements R4 and R7. The BA could provide the relevant generator capability and availability information to the RC. Therefore, the Reliability Standards could be revised either to require GOPs to communicate cold-weather generator capability and availability to BAs or TOPs, or else require BAs and TOPs to include provisions for notification of such capability and availability in their data specifications, as described above in response to Question 3.

A GOP requirement to communicate generator capability and availability due to cold weather would be more straightforward than a data specification requirement, and could be included as a new R8 in EOP-011, if the proposed R7 for GOs is adopted. The language of R8 could read as follows:

R8. Each Generator Operator shall notify each impacted Balancing Authority and Transmission Operator of the capability and availability of each of its generating units based on any operating limitations or unit-specific design specifications during actual or anticipated cold weather conditions. [Violation Risk Factor: High] [Time Horizon: Operations Planning, Same Day Operations, and Real-Time Operations]

This change would require extending the applicability of EOP-011 to GOPs.

If the SDT makes any revisions to EOP-011, ERCOT suggests that the word “Operations” be retained in the title of EOP-011 because the standard still addresses implementation of operating plans in real-time operations. The title could be revised to be “Emergency Operations and Preparedness.”

ERCOT recommends that the time horizon for data specifications should be expanded to include the real-time and same-day time horizons.

Likes	0
Dislikes	0
Response	
<p>Thank you for your comments. In consideration of feedback received from industry, the SDT made changes to EOP-011. Some of which address your suggestion(s) or concerns.</p>	
Jun Hua - Austin Energy - 4	
Answer	
Document Name	
Comment	
<p>Austin Energy recommends that in section EOP-011-2, 7.3.2.2: GOs should be required to maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Additionally, effort should be made to estimate cold weather performance in the absence of actual data when possible.</p> <p>Recommend</p> <p>7.3 Generating unit(s) cold weather data, to include:</p> <p>7.3.1. Generating unit(s) operating limitations in extreme cold weather; and</p> <p>7.3.2. Generating unit(s) operating limitations in extreme precipitation events; and</p> <p>7.3.3. Generating unit(s):</p> <p>7.3.3.1. minimum and maximum design temperature; or</p> <p>7.3.3.2. minimum demonstrated historical performance during extreme weather;</p>	
Likes	0

Dislikes	0
Response	
Thank you for your comments. Please see the modifications made to EOP-011-2, which have addressed majority of your comments.	
Gladys DeLaO - CPS Energy - 1	
Answer	
Document Name	
Comment	
The addition of the phrase “any other” in the proposed changes to EOP-011-2 R1.2.6.2 and R2.2.9.2 is too general and would make requirement impossible for TOP to comply with.	
Likes	0
Dislikes	0
Response	
Thank you for your comment. The phrase “any other” has been removed from EOP-011 respective areas.	
Michael Dillard - Austin Energy - 5	
Answer	
Document Name	
Comment	
Austin Energy recommends that in section EOP-011-2, 7.3.2.2: GOs should be required to maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Additionally, effort should be made to estimate cold weather performance in the absence of actual data when possible.	

Recommend

7.3 Generating unit(s) cold weather data, to include:

- 7.3.1. Generating unit(s) operating limitations in extreme cold weather; and
- 7.3.2. Generating unit(s) operating limitations in extreme precipitation events; and
- 7.3.3. Generating unit(s):
 - 7.3.3.1. minimum and maximum design temperature; or
 - 7.3.3.2. minimum demonstrated historical performance during extreme weather;

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the modifications made to EOP-011-2, which have addressed majority of your comments.

Glenn Pressler - CPS Energy - 3

Answer

Document Name

Comment

The addition of the phrase “any other” in the proposed changes to EOP-011-2 R1.2.6.2 and R2.2.9.2 is too general and would make requirement impossible for TOP to comply with.

Likes 0

Dislikes 0

Response

Thank you for your comments. The phrase “any other” has been removed from EOP-011 respective areas.

Elizabeth Davis - Elizabeth Davis On Behalf of: Tom Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis

Answer

Document Name

Comment

In addition to supporting the IRC SRC comments, PJM requests consideration of the following:

- Requesting the Standard Drafting Team to add definitions in the standard to define cold weather (recommend using NOAA data) and extreme weather conditions.
- (Given the long times between generation audit cycles) add an annual / seasonal requirement for Generation Owners to report plans for validation by the host RE/RC/TOP. Include annual spot checks outside audit cycles conducted by the host RC/TOP/RE.
- Future versions of this standard should consider more prescriptive plan standards by unit size, type, and fuel sources.
- Clear reporting, spot checks and auditing standards should accompany the final submittal of this standard to FERC.

Likes 0

Dislikes 0

Response

Thank you for your comment. (1) The SDT is not defining cold weather as a NERC glossary term. This will be defined with your cold weather preparedness plan based on geographical regions. (2) The SDT will note your comment regarding more prescriptive plans by unit size, type, and fuel source for future consideration. (3) The SDT did not include a requirement for RC/TOPs to validate or spot check Generator Owner cold weather preparedness operations plans at this time. Compliance will be reviewed by ERO Enterprise staff.

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer

Document Name

Comment

OPG concurs with the NPCC Regional Standards Committee's comments.

Likes 0

Dislikes 0

Response

Please see the SDT's response to NPCC Regional Standards Committee.

Jamie Johnson - California ISO - 2

Answer

Document Name

Comment

CAISO agrees with comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee.

Likes 0

Dislikes 0

Response

Please see the SDT's response to the ISO/RTO Counsel (IRC) Standards Review Committee.

Kathleen Goodman - ISO New England, Inc. - 2 - NPCC, Group Name Standards Review Committee (SRC)

Answer

Document Name

Comment

SRC further suggests:

- Removal of the word “any” in proposed EOP-011 sub-requirement 1.2.6.2 and 2.2.9.2; and use the wording “other extreme weather conditions”. The concern is the word “any” makes this requirement very broad and open to interpretation.
- Retain the current title: EOP-011-1 Emergency Operations. This request is due to the required inherent preparedness needed for operations; and R5 and R6 meeting the Time Horizon: Real-Time Operations.
- Suggest removing “Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather,” from IRO-010 R1.3 and including it in TOP-003. Leaving the IRO-010 R1.3 to state “Provisions for notification of expected BES generating unit operation limitations during local forecasted cold weather.”

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) The SDT removed the phrase “any other” from the respective areas within the EOP-011-2. (2) The SDT updated the title to state “Emergency Preparedness and Operations”, this allows the title to accurately reflect the content within the EOP-011-2 standard.

W. Dwayne Preston - Austin Energy - 3

Answer

Document Name

Comment

Austin Energy recommends that in section EOP-011-2, 7.3.2.2: *GOs should be required to maintain cold weather data that is relevant in the absence of actual data within the last 5 years. For example, if cold weather has not occurred in the last 5 years but data from 7 years ago is available, that 7-year-old data should remain in place. Additionally, effort should be made to estimate cold weather performance in the absence of actual data when possible.*

Recommend

7.3 Generating unit(s) cold weather data, to include:

- 7.3.1. Generating unit(s) operating limitations in extreme cold weather; and
- 7.3.2. Generating unit(s) operating limitations in extreme precipitation events; and
- 7.3.3. Generating unit(s):
 - 7.3.3.1. minimum and maximum design temperature; or
 - 7.3.3.2. minimum demonstrated historical performance during extreme weather;

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the modifications made to EOP-011-2, which have addressed majority of your comments.

Amy Jones - Public Utility District No. 2 of Grant County, Washington - 1,4,5,6

Answer

Document Name

Comment

If we assess that the extreme cold weather that could affect our generators is colder than has ever occurred in our region, how much colder would it have to be than the lowest ever temperature (in 20, 30, 50 years?) to excuse us from annual maintenance or checks that do not currently exist in our routines because they are not necessary or viable to do?
 Are they expecting us to have a different operational plan for cold weather than we have for other extreme weather events since it has been singled out (as opposed to high wind, extreme heat and fire, or excessive rain which are more plausible emergencies in our area). Will they accept a cold weather plan that shows that there has been no issues with the units for all temperatures in history since our water flows continuously on the river and doesn't freeze regardless of temperature... -
 Requiring training separately is mute if the plan does not identify any issues.....

Likes 0

Dislikes 0	
Response	
Thank you for your comments. The standard has been drafted to allow the entity flexibility on how the plan is drafted. However, at a minimum, the sub requirements need to be identified within your plan. The purpose of training is to ensure the awareness of what to do in the event of cold weather, and the SDT would recommend training be completed.	
Erin Green - Western Area Power Administration - 1,6	
Answer	
Document Name	
Comment	
Support comments by Western Area Power Administration, Sean Erickson, Segment 1.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to WAPA, Sean Erickson.	
Pamalet Mackey - Pamalet Mackey On Behalf of: Ed Hanson, Pacific Gas and Electric Company, 1, 3, 5; Sandra Ellis, Pacific Gas and Electric Company, 1, 3, 5; - Pamalet Mackey	
Answer	
Document Name	
Comment	
n/a	

Likes	0
Dislikes	0
Response	
Bobbi Welch - Midcontinent ISO, Inc. - 2	
Answer	
Document Name	
Comment	
MISO supports the IRC SRC comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to IRC SRC.	
Mike Hirst - Cogentrix Energy Power Management, LLC - 5 - NPCC,SERC,RF, Group Name Cogentrix Energy Power Management	
Answer	
Document Name	
Comment	
Miscellaneous comments for extreme cold weather events happen throughout the country in all regions.	
Other areas that should be included along with freeze protection:	
<ul style="list-style-type: none"> Fuel supplies Extra backup reserve in place Incentives for facilities that ride through extreme cold conditions 	

- o extreme cold weather needs to be a defined term

Likes 0

Dislikes 0

Response

In consideration of feedback received, the SDT changed TOP-003-5 and IRO-010-4 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Daniel Gacek - Exelon - 1

Answer

Document Name

Comment

Exelon concurs with the EEI comments to Question 8.

On Behalf of Exelon, Segments: 1, 3, 5, 6

Likes 0

Dislikes 0

Response

Please see the SDT's response to EEI question 8.

Darnez Gresham - Berkshire Hathaway Energy - MidAmerican Energy Co. - 3

Answer

Document Name

Comment

MidAmerican Energy Company Supports comments submitted by the MRO NERC Standard Review Forum (NSRF)

Likes 0

Dislikes 0

Response

Please see the SDT's response to MRO NSRF.

Patrick Wells - OGE Energy - Oklahoma Gas and Electric Co. - 5

Answer

Document Name

Comment

TOP-003-5:

Under R2, Subpart 2.2, the proposed draft has incorrectly removed notifications of current Protection System status or degradation that impacts System reliability. This should be corrected.

Any modifications to the NERC Reliability Standards to address cold or other extreme weather conditions should align with the functions laid out in the NERC Functional Model and be consistent with the Recommendations of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018." Incorporating requirements for functions outside an entity's purview are counterproductive {C}[[A1](#)]

Likes 0

Dislikes 0

Response

In consideration of feedback received from industry, the SDT made changes to EOP-011, IRO-010 and TOP-003 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved.

Jeanne Kurzynowski - CMS Energy - Consumers Energy Company - 3,4,5 - RF

Answer

Document Name

Comment

Requesting a definition of cold weather.

Likes 1

CMS Energy - Consumers Energy Company, 4, Root Aric

Dislikes 0

Response

Please see the SDT's response to EEI.

Kenya Streeter - Edison International - Southern California Edison Company - 1,3,5,6

Answer

Document Name

Comment

See comments submitted by Edison Electric Institute".

Likes 0

Dislikes 0

Response

Please see the SDT's response to EEI.

Larry Rogers - Southern Indiana Gas and Electric Co. - 5

Answer

Document Name

Comment

The addition of the phrase “any other” in the proposed changes to EOP-011-2 R1.2.6.2 and R2.2.9.2 could make it impossible for entities to comply with. CenterPoint Energy recommends removing this language.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT removed “any other” from the respective areas in EOP-011.

Terry Harbour - Berkshire Hathaway Energy - MidAmerican Energy Co. - 1

Answer

Document Name

Comment

MEC supports the Cold Weather project, but also agrees with and supports the MRO NSRF comments on needed changes first. Poorly written standards written in haste result in vague requirements which can lead to misinterpretation and needless violations.

The drafting team should ensure the new requirements are technology agnostic and apply to all resources necessary to maintain reliability. There have been several SARs lately to address this issue in other standards.

There isn't 'linkage' for the GO facility to go the PC/TP. A PC/TP may add this data into the MOD-032 requirements to plan in the Planning Horizon.

For EOP-011-2

4.2 Facilities:

Recommend the following to give clear guidance to what generators are to be in the GO's cold weather plan (this is currently approved on MOD-025-2).

For the purpose of this standard, the term, "applicable Facility" shall mean any one of the following:

4.2.1, All BES generators. This is a simple and to the point Applicability statement.

Part 1.2.6 Recommend that Part 1.2.6 not be updated as proposed and kept as currently approved in EOP-011-1, since "Reliability impact of extreme weather conditions" covers all weather conditions. Plus, "reliability impacts" are outputs of data that the TOP should be giving in TOP-003.

Part 2.2.9 Recommend that Part 2.2.9 not be updated as proposed and kept as currently approved in EOP-011-1, since "Reliability impact of extreme weather conditions" covers all weather conditions. Plus, "reliability impacts" are outputs of data that the BA should be giving in TOP-003.

Implementation Plan

Please note that Compliance Application Notice [\(CAN\) – 0012](#) is still active and may impact the Implementation Plan. Recommend the Implementation Plan to read:

General Considerations This implementation plan provides that entities shall have twelve months to become compliant with the revised Reliability Standards after the new effective date. And continues to read:

This implementation plan also reflects consideration that entities will need time to develop, and distribute revised data specifications to affected entities (per IRO-010-4 and TOP-003-5), revised data specifications and for receiving entities to develop the necessary capabilities in order to comply with revised data specifications.

Does FAC-008 need to be modified to call out cold weather ratings?

- - The documentation shall contain assumptions used to rate the generator and at least one of the following:

- Design or construction information such as design criteria, ratings provided by equipment manufacturers, equipment drawings and/or specifications, engineering analyses, method(s) consistent with industry standards (e.g. ANSI and IEEE), or an established engineering practice that has been verified by testing or engineering analysis.
- Operational information such as commissioning test results, performance testing or historical performance records, any of which may be supplemented by engineering analyses.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received from industry, the SDT made changes to EOP-011, IRO-010 and TOP-003 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved. The SDT determined that FAC-008 does not need to be modified at this time.

You are correct that CAN-012 is still active. The new requirements for this project would become effective on the effective date (absent any special guidance in the implementation plan).

Donna Johnson - Oglethorpe Power Corporation - 5

Answer

Document Name

Comment

OPC suggests that training requirements (R7.4) should be added to PER standards versus being scattered within other standard families.

OPC agrees with the NAGF recommendation that R1.2 of EOP-011-2 be supplemented with, "Identification of essential fuel supply infrastructure that shall not be subject to load shedding, including natural gas pipeline compressor stations, LNG storage plants, natural gas processing plants, natural gas field wellhead compressors and other critical gas system components." This

verbiage is drawn from NERC's Reliability Guideline Gas and therefore should not be incorporated in planning models. Examples of such cold weather operating limitations include:

- River ice formations that impact generator water inlets
- Inlet air filters blocked by accumulating/drifted snow
- NG pipeline pressure fluctuations

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received from industry, majority of industry wanted the cold weather preparedness requirements all together. Therefore, the SDT created a new Requirement R8 within the EOP-011 standard. In addition, The SDT does not believe maintenance or design changes related to items such as freeze protection measures are appropriate for the FAC standards- such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. The areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.

Kevin Salsbury - Berkshire Hathaway - NV Energy - 5

Answer

Document Name

Comment

NV Energy would again like to commend the Cold Weather SDT on the work done for this project, as NV Energy does believe this is a necessary industry requirement, especially given the recent Freeze Event that hit the midwest and Texas. NV Energy just believes some additional clarification is required within the revisions prior to approval.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s).

Carl Pineault - Hydro-Quebec Production - 5

Answer

Document Name

Comment

Hydro-Quebec Production has not comments on the proposed changes.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

Document Name

Comment

General Comments

The Guidelines and Technical Basis have been removed from EOP-011-2, IRO-010-4, and TOP-003-5 but the Technical Rationale document that retains the rationale for each document has not been posted with the current drafts. Before these Reliability Standards are approved, the Technical Rationale documents should be posted for industry review.

Comments for EOP-011-2

The previous title of EOP-011, Emergency Operations, should be retained or modified to include Preparedness since emergency operations remains the primary focus of this Reliability Standard. (e.g., Emergency Operations and Preparedness)

The Redline now includes a “Facilities” section but only identifies Generating Plants. EOP-011 covers more than Generating Plants and this section should be updated to cover all the facilities that the Reliability Standard covers.

Proposed modifications to Requirement R1, Subpart 1.2.6.2 and R2, Subpart 2.2.9.2 expand the language within the current approved Reliability Standard to address “any other” extreme weather conditions. The inclusion of the phrase “any other” is ambiguous from a compliance perspective. Additionally, the revised language could be read to require Registered Entities to prepare for extreme weather that has no applicability to the region(s) they reside (e.g., hurricane in Montana). EEI recommends clarifying the intent of proposed phrase “any other” in the Requirements R1 and R2 or removing it.

Comments for TOP-003-5

Requirement R2, Subpart 2.2 incorrectly removed notifications of current Protection System status or degradation that impacts System reliability. This should be corrected.

Likes	0
Dislikes	0

Response

Thank you for your comments. 1) The SDT move the GTB to the TR and it is reflected with the draft 2 posting. 2) The SDT removed “any other” from the respective EOP-011 standard areas.

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Standard Collaborations

Answer

Document Name

Comment

Please consider using a basis of/from the NOAA Extreme Weather events, which are based on regional climate centers, statistical models, and scientific data to define “cold weather,” “extreme weather conditions,” and “cold weather conditions”.

Thank you for the opportunity to comment.

Likes 0

Dislikes 0

Response

The SDT drafted the cold weather preparedness to allow for the entities to build their cold weather preparedness plan in a way that works for the entity and their geographical region. There are no requirements preventing any entity from using NOAA Extreme Weather Events. The team determined not to define cold weather or extreme weather conditions as that will be defined within your cold weather plan for your geographical area.

Romel Aquino - Edison International - Southern California Edison Company - 3

Answer

Document Name

Comment

See comments submitted by Edison Electric Institute.

Likes 0

Dislikes 0

Response

Please see the SDT's response to EEI.

David Jendras - Ameren - Ameren Services - 3

Answer

Document Name

Comment

Ameren Agrees with and supports NAGF comments	
Likes	0
Dislikes	0
Response	
Please see the SDT's response to NAGF.	
Shannon Ferdinand - Capital Power Corporation - 1,6 - MRO,WECC,Texas RE,SERC	
Answer	
Document Name	
Comment	
<p>Capital Power appreciates the opportunity to participate in NERC's stakeholder consultation process. We recognize the risk that severe weather can have on the grid and appreciate the desire to implement a regulation to mitigate the risk. However, Capital Power believes that EOP-011 R7, as it is currently written, does not set out a clear or measurable path for entities to meet the reliability objective or the stated purpose of EOP-011. Specifically, Capital Power puts forward the following points for the ERO's consideration:</p> <p>Clarity - R7 requires all applicable generators to develop a cold weather preparedness plan which includes certain defined elements. However, the defined elements are vague and subjective, which could lead to some entities having cold weather preparedness plans that meet the requirement from a compliance perspective, but which do not actually mitigate risk or meet the reliability objective. The Standard Drafting Team (SDT) should consider revising this requirement to align with the reliability objective more clearly. Specific opportunities for clarity include, but are not limited to:</p> <ul style="list-style-type: none"> • 'Cold weather' needs to be defined: the SDT should consider a definition of Cold Weather to offer entities in diverse geographical areas more definitive criteria. • Burden of proof – Is the entity obligated to demonstrate through technical evidence (i.e. engineering design study, hardening of equipment) that the winter preparedness plan is effective and / or sufficient to mitigate and prepare for Cold Weather (i.e. mitigates the reliability risk) or is the existence of the principled based plan with the prescribed elements sufficient to meet the compliance requirement? 	

- If the entity is required to assess and/or harden every critical piece of equipment, the scope of work and associated costs would be significant. Capital Power recommends that GO/GOPs be in charge of determining appropriate cold weather preparedness measures; so long as these measures are documented, the performance of said measures is not currently considered in this principled based standard.
- Extreme weather and natural events are often unpredictable; a plan may not be comprehensive enough to cover every possible scenario, and operational decisions that differ from 'the plan' may be necessary in real time. If an entity is required to make decisions that differ from 'the plan' in real time, for safety or reliability reasons, they may find themselves out of compliance with the 'implementation' of EOP-011 R7. The Standard Drafting Team should consider the addition of an 'exceptional circumstances' clause, like the CIP standards.
- Additional clarification re. 'freeze' protection on peak / intermittent resources (wind / solar)
- Additional clarification re. maintenance and inspection requirements

Other Considerations:

- **Risk Based** – This requirement has been developed to meet an identified reliability risk; however, for many northern entities, operating in cold weather is standard operating procedure and does not generally equate to an 'operating emergency'. These entities' interests align with ensuring that their sites are 'fit for duty' in all weather conditions, and EOP-011 R7 would be an administrative exercise that offers little mitigation, given the minimal risk that cold weather poses in northern climates. The SDT should consider revising this requirement such that the applicability of R7 is based on risk at the discretion and /or on the specific request of the appropriate planning entity. For new generation, grid operators could mandate certain levels of cold weather technical requirements, including voltage and frequency requirements, via interconnection agreements.
- **Extreme Weather** - This standard does not currently consider extreme cold weather or extreme heat. Extremes in any direction can pose a risk to even the most prepared generator. The SDT should consider revising the standard to include extreme weather preparedness.
- **Fuel Supply Issues** - This standard does not account for fuel supply issues that can occur during extreme weather and which are, in general, outside of the GO's control. In extreme natural events (including extreme weather), no matter how prepared the natural gas generator may be, if external NG pipelines freeze or fuel is redirected away from generators, the GO/GOP response options are limited.

- **Synergies** – There are other standards (i.e., MOD, FAC standards) that may require GO/GOPs to provide information about winter / summer operating specifications. The SDT should review standards with potential overlap / redundancies and work to consolidate all cold weather-related data requests into one standard.

Likes 0

Dislikes 0

Response

Thanks for your comments. (1) The SDT provided many clarifications to Requirement R7 in EOP-011. (2) As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). (3) Please see the updated modifications to draft 2. The SDT has stated in previous responses to industry, that although a definition of “cold weather” was suggested, it would be very difficult to develop a consistent and acceptable term since there are different interpretations across the ERO and varying weather conditions.

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee no UI

Answer

Document Name

Comment

RE: EOP-011-2 R1.2.6.2 and R2.2.9.2 “any other extreme weather conditions”: We suggest the removal of the word “any.” The inclusion of the word “any” expresses a lack of restriction and could result in audit and compliance difficulties.

RE: TOP-003-5 R2.2: There appears to be an error in the revision of R2.2. We suggest that R2.2 should read as, “Provision for notification of current Protection System and Remedial Action Scheme (RAS) status or degradation that impacts System reliability.” Instead of “Provisions for notification of current Protection Remedial Action Scheme status or degradation that impacts System reliability.”

RE: Guidelines and Technical Basis (GTB) sections of EOP-011, IRO-010, and TOP-003. Technical Rationale documents should be posted for industry review and comment since the GTB sections of EOP-011, IRO-010, and TOP-003 are being removed.

EOP-011-2, R1: *addition for clarification*

1.2.6. *Provisions to determine potential Reliability impacts of:*

Requirement 1.2 states the TOP’s Operating Plans(s) should include processes to prepare for and mitigate Emergencies. Reliability impacts of cold weather conditions and any other extreme weather conditions are not a process, but rather a type of Emergency that the TOP must have a plan(s) to address. This addition will clarify that a process should be in place to address cold weather and other extreme conditions.

The drafting team should consider revising the use of the term cold weather conditions. Cold weather has different meanings to different locations. The drafting team should consider terms such as “below normal” or a “certain percentile below normal”. Also is time a factor, a couple of hours to a couple of days?

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). (2) The SDT removed “Any” from the respective areas in EOP-011. (3) The GTB has been removed from the standard and inserted into the TR. There was an effort that the SC approved removing all GTB from the standards and inserting them into the TR or pulling out the IG information for ERO endorsement. Based on the June 11, 2021 NERC Board directive, the cold weather team inserted the GTB into the TR and added additional TR for the new modifications. Please see the TR document, which is posted under supporting materials on the project page. (4) Please see the SDT’s updates in draft 2.

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper

Answer

Document Name

Comment

What is the reason for removing the Guidelines and Technical Basis from each of these standards?

Likes 0

Dislikes 0

Response

Thank you for your comment. The GTB has been removed from the standard and inserted into the TR. There was an effort that the SC approved removing all GTB from the standards and inserting them into the TR or pulling out the IG information for ERO endorsement. Based on the June 11, 2021 NERC Board directive, the cold weather SDT inserted the GTB into the TR and added additional TR for the new modifications. Please see the TR document, which is posted under supporting materials on the project page.

Sing Tay - OGE Energy - Oklahoma Gas and Electric Co. - 6, Group Name OKGE

Answer

Document Name

Comment

TOP-003-5: Under R2, Subpart 2.2, the proposed draft has incorrectly removed notifications of current Protection System status or degradation that impacts System reliability. This should be corrected.

Any modifications to the NERC Reliability Standards to address cold or other extreme weather conditions should align with the functions laid out in the NERC Functional Model and be consistent with the Recommendations of the "Report on the South Central United States Cold Weather Bulk Electric System Event of January 17, 2018." Incorporating requirements for functions outside an entity's purview are counterproductive.

Likes 0

Dislikes 0

Response

Thank you for your comment. Please see the updated modifications. Your concern has been addressed.

Douglas Webb - Douglas Webb On Behalf of: Allen Klassen, Evergy, 6, 1, 3, 5; Derek Brown, Evergy, 6, 1, 3, 5; Marcus Moor, Evergy, 6, 1, 3, 5; Thomas ROBBEN, Evergy, 6, 1, 3, 5; - Douglas Webb

Answer

Document Name

Comment

Evergy supports and incorporates by reference Edison Electric Institute’s response to Question 8.

Likes 0

Dislikes 0

Response

Please see the SDT’s response to EEI.

Wayne Guttormson - SaskPower - 1

Answer

Document Name

Comment

Support the intent of this project and the updating of the three applicable Standards. Support the submitted MRO-NSRF comments.

Likes 0

Dislikes 0

Response

Please see the SDT’s response to MRO NSRF.

Neil Shockey - Edison International - Southern California Edison Company - 5

Answer

Document Name	
Comment	
SCE supports EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Please see the SDT's response to EEI.	
Meaghan Connell - Public Utility District No. 1 of Chelan County - 5, Group Name PUD No. 1 of Chelan County	
Answer	
Document Name	
Comment	
<p>CHPD supports the efforts of the SDT to address the recommendations identified in the 2019 FERC and NERC staff report. CHPD also remains supportive of the addition of Requirements addressing Cold Weather preparedness however, CHPD has concerns over the language in these proposed revisions maintaining the requirement that all BES generating units would be required to develop and implement cold weather preparedness plans. It is CHPD's opinion that including all BES generating units continues to put an unnecessary compliance burden on the bulk of generating units that already operate reliably in historically cold climates.</p> <p>CHPD requests the drafting team add language providing an exemption for those units located in historically cold climates that already operate reliably in routinely cold weather regions in order to not divert resources from valuable work in maintaining these generators.</p>	
Likes 0	
Dislikes 0	
Response	

The SDT understands and appreciates your concerns. As explained in previous responses to industry comments, the extensiveness of each entity’s cold weather preparation plan would be based on their specific geographic area and past cold weather experiences. Also, for those generators that regularly operate in freezing weather, it is assumed that although a formal cold weather preparation plan may not have been established, these facilities already implement the necessary practices to ensure winter readiness.

Ben Burnett - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE, Group Name CEHE Project 2019-06 Cold Weather

Answer

Document Name

Comment

The addition of the phrase “any other” in the proposed changes to EOP-011-2 R1.2.6.2 and R2.2.9.2 could make it impossible for entities to comply with. CEHE recommends removing this language.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT removed “any other” from the respective areas in EOP-011. Please see the updated draft.

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF, Group Name SIGE Project 2019-06

Answer

Document Name

Comment

The addition of the phrase “any other” in the proposed changes to EOP-011-2 R1.2.6.2 and R2.2.9.2 could make it impossible for entities to comply with. Southern Indiana Gas & Electric recommends removing this language.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT removed “any other” from the respective areas in EOP-011. Please see the updated draft.

Larry Heckert - Alliant Energy Corporation Services, Inc. - 4

Answer

Document Name

Comment

Alliant Energy supports the comments submitted by the MRO NSRF.

Likes 0

Dislikes 0

Response

Please see SDT’s response to MRO NSRF.

Marcus Bortman - APS - Arizona Public Service Co. - 6

Answer

Document Name

Comment

AZPS would also like further clarification on the following terms. “Cold weather” is not defined. “Extreme weather conditions” not defined. Is it based on temperature or geography? What is the scope of “cold” and “extreme”?

Likes 0

Dislikes 0

Response

Thanks for your comments. The SDT has stated in previous responses to industry, that although a definition of “cold weather” was suggested, it would be very difficult to develop a consistent and acceptable term since there are different interpretations across the ERO and varying weather conditions.

Devon Tremont - Taunton Municipal Lighting Plant - 1

Answer

Document Name

Comment

EOP-011 Applicability: To avoid confusion, the SDT should delete the “Facilities” subsection from the Applicability section, and instead replace instances of “generating unit(s)” throughout the standard with “BES generator(s).” For example, the first sentence of Requirement R7 would read “Each Generator Owner shall... implement one or more cold weather preparedness plan(s) for its BES generator(s).” If the SDT nevertheless retains the Facilities subsection, to avoid confusion about whether facilities that do not fit the definition can nevertheless be “generating unit(s),” the subsection should be revised to read “For the purpose of this standard, the term “generating unit” *means* BES generators.”

EOP-011 Purpose statement: The proposed purpose statement is unclear. We suggest that it instead read: “To ensure applicable entities have developed plan(s) to prepare and mitigate operating Emergencies.”

EOP-011 Requirement R7: Overall, proposed R7 does not state a clear, measurable objective, and thus does not meet the attributes of a results-based standard as described in Section 2.4 of the Standards Process Manual. Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Moreover, because the objective is not clearly stated, there is a significant risk that members of the drafting team or stakeholders are in fact working at cross-purposes due to having differing understandings of the objective.

“Develop, maintain, and implement”: The standard should require entities to “implement” a plan, not “develop, maintain, and implement” it. It is impossible to implement a plan without developing and maintaining it; including independent requirements to “develop” and “maintain” the plan simply results in more opportunities for administrative noncompliance, with no benefit to reliability. We recognize that the SDT is using the same language as the existing requirements in the standard, but doing so unnecessarily perpetuates a preexisting mistake; the SDT should instead correct the mistake throughout the standard.

For the sake of clarity, R7.1 should be revised to refer to “specific” rather than “unique” factors: “Generating unit(s) freeze protection measures based on specific factors such as geographical location and plant configuration.”

The drafting team should also revise the data/evidence retention requirements in the standards in accordance with the recommendations from the Standards Efficiency Review Project. See item 9 from the December 2019 Standards Committee meeting materials.

Finally, with respect to EOP-011, proposed R7.4, it is not at all clear from the balance of proposed R7 what, if any, “roles and responsibilities of site personnel” would be “contained in the cold weather preparedness plan.” If the objective is for plant operating personnel (i.e. *GOP* personnel) to understand the freeze protection measures implemented at the generator, then the subrequirement should read “Inform Generator Operator(s) with responsibility for Generator Owner’s BES generator(s) of freeze protection measures in place at the applicable BES generator(s).” To the extent that the SDT believes that training of GO and/or GOP personnel is necessary, any such requirements belong in PER-006, not EOP-011.

Likes	0
Dislikes	0

Response

Thank you for your comments. (1) The use of the facility section is correctly used to help entities understand the term “generating unit” within the EOP-011-2 standard. This term is not used in other locations. (2) Please see the SDT’s updated modifications to draft 2 standard. (3) Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard.

Karie Barczak - DTE Energy - Detroit Edison Company - 3, Group Name DTE Energy - DTE Electric

Answer	
Document Name	
Comment	

DTEE supports the comments of the NAGF and would like to add that awareness training is not as effective as formal training. PER-006 was developed for the purpose of having a standard available to include all applicable plant operator training. Also, DTEE requests more information on the definition of “historical performance” as laid forth in EOP-011 R7.3.2.2, IRO-010 R1.3 and TOP-003 R1.3.

Thank you.

Likes 0

Dislikes 0

Response

Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. Additionally, please see the updated standards with the SDT’s attempt to provide additional clarity.

Matthew Beilfuss - WEC Energy Group, Inc. - 4

Answer

Document Name

Comment

No comments

Likes 0

Dislikes 0

Response

Robin Hill - Robin Hill On Behalf of: Heather Morgan, EDP Renewables North America LLC, 5; - Robin Hill

Answer	
Document Name	
Comment	
<p>With respect to EOP-011 R7.3, we suggest removing the requirement to include the cold weather data within the cold weather preparedness plan. Though entities should be required to collect this information, it is administratively burdensome with little to no reliability benefit to include it within the cold weather preparedness plan. Additionally, for entities that use one fleetwide cold weather preparedness plan for multiple generation facilities, putting this information within the cold weather preparedness plan would be very burdensome without additional benefit. We recommend removing 7.3 and its subparts to a new requirement within EOP-011 so that the information is required to be collected, however, it does not have to be within the cold weather preparedness plan.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Thank you for your comments. Please see the updated revised standard, which should address your concerns.</p>	
<p>Maryanne Darling-Reich - Black Hills Corporation - 1,3,5,6 - MRO,WECC</p>	
Answer	
Document Name	
Comment	
<ul style="list-style-type: none"> • Black Hills Corporation does not see any reason to further break down EOP-011 R1.2.6 and 2.2.9, Unless they specifically want to ensure that cold weather is addressed, which is fine. For R1.2.6, BHC would like to have some examples of what this might include for the TOP; i.e. tank heaters for SF6 breakers, low Nitrogen on BES transformers • What exactly are the concerns for the TOP and their equipment specifically related to cold weather that would be associated with extreme weather events? • If we talk about icing conductors, that’s sort of a different weather extreme than just cold weather. • Beyond cold weather, are we to address icing, snow, wind, blizzard? 	

- From a Generator Owner/Operator perspective Black Hills agrees with NAGF question 8 comments

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). (2) “Extreme weather conditions” is legacy language applicable to TOP and BA Operating Plans and was not added by this SDT. It should not be impacted by the current modifications. (3) The SDT drafted the requirements to allow entities flexibility in how you draft your cold weather preparedness plan.

Truong Le - Truong Le On Behalf of: David Owens, Gainesville Regional Utilities, 1, 5, 3; Neville Bowen, Ocala Utility Services, 3; - Truong Le

Answer

Document Name

Comment

EOP-011 Applicability: To avoid confusion, the SDT should delete the “Facilities” subsection from the Applicability section, and instead replace instances of “generating unit(s)” throughout the standard with “BES generator(s).” For example, the first sentence of Requirement R7 would read “Each Generator Owner shall... implement one or more cold weather preparedness plan(s) for its BES generator(s).” If the SDT nevertheless retains the Facilities subsection, to avoid confusion about whether facilities that do not fit the definition can nevertheless be “generating unit(s),” the subsection should be revised to read “For the purpose of this standard, the term “generating unit” *means* BES generators.”

EOP-011 Purpose statement: The proposed purpose statement is unclear. We suggest that it instead read: “To ensure applicable entities have developed plan(s) to prepare and mitigate operating Emergencies.”

EOP-011 Requirement R7: Overall, proposed R7 does not state a clear, measurable objective, and thus does not meet the attributes of a results-based standard as described in Section 2.4 of the Standards Process Manual. Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Moreover, because the objective is not clearly stated, there is a significant risk that members of the drafting team or stakeholders are in fact working at cross-purposes due to having differing understandings of the objective.

“Develop, maintain, and implement”: The standard should require entities to “implement” a plan, not “develop, maintain, and implement” it. It is impossible to implement a plan without developing and maintaining it; including independent requirements to “develop” and “maintain” the plan simply results in more opportunities for administrative noncompliance, with no benefit to reliability. We recognize that the SDT is using the same language as the existing requirements in the standard, but doing so unnecessarily perpetuates a preexisting mistake; the SDT should instead correct the mistake throughout the standard.

For the sake of clarity, R7.1 should be revised to refer to “specific” rather than “unique” factors: “Generating unit(s) freeze protection measures based on specific factors such as geographical location and plant configuration.”

The drafting team should also revise the data/evidence retention requirements in the standards in accordance with the recommendations from the Standards Efficiency Review Project. See item 9 from the December 2019 Standards Committee meeting materials.

Finally, with respect to EOP-011, proposed R7.4, it is not at all clear from the balance of proposed R7 what, if any, “roles and responsibilities of site personnel” would be “contained in the cold weather preparedness plan.” If the objective is for plant operating personnel (i.e. *GOP* personnel) to understand the freeze protection measures implemented at the generator, then the subrequirement should read “Inform Generator Operator(s) with responsibility for Generator Owner’s BES generator(s) of freeze protection measures in place at the applicable BES generator(s).” To the extent that the SDT believes that training of GO and/or GOP personnel is necessary, any such requirements belong in PER-006, not EOP-011.

Likes	0
Dislikes	0

Response

Thank you for your comments. (1) The use of the facility section is correctly used to help entities understand the term “generating unit” within the EOP-011-2 standard. This term is not used in other locations. (2) The SDT drafted the requirements to allow entities flexibility in how you draft your cold weather preparedness plan. It is up to the entity on how it provides training. The key is that the operating

personnel have awareness on how to handle situations in the event of cold weather. (3) Please see the updated modifications made by the SDT.

Justin Welty - NextEra Energy - Florida Power and Light Co. - 6

Answer

Document Name

Comment

We understand the SDT is focusing on requirements for generators to address the first of the FERC recommendations. Following the issues in Texas this winter, as well as the MISO/SPP issues in the winters of 2018/2019, it seems prudent to quickly focus on additional requirements for RC, BA and TOP preparedness, thus addressing the remaining FERC recommendations.

Additionally, coordination across critical infrastructure sectors needs to be considered. For example, natural gas firmness, that the natural gas pipelines have “winterization” plans similar to what is being asked for the generators, that capacity values for units is adjusted to winter capabilities (including solar) and if there is alternate fuel back up if gas not sufficient; especially for a multi-day event.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s).

Rebecca Baldwin - Transmission Access Policy Study Group - NA - Not Applicable - NA - Not Applicable

Answer

Document Name

Comment

EOP-011 Applicability: To avoid confusion, the SDT should delete the “Facilities” subsection from the Applicability section, and instead replace instances of “generating unit(s)” throughout the standard with “BES generator(s).” For example, the first sentence of Requirement R7 would read “Each Generator Owner shall... implement one or more cold weather preparedness plan(s) for its BES generator(s).” If the SDT nevertheless retains the Facilities subsection, to avoid confusion about whether facilities that do not fit the definition can nevertheless be “generating unit(s),” the subsection should be revised to read “For the purpose of this standard, the term “generating unit” *means* BES generators.”

EOP-011 Purpose statement: The proposed purpose statement is unclear. We suggest that it instead read: “To ensure applicable entities have developed plan(s) to prepare and mitigate operating Emergencies.”

EOP-011 Requirement R7: Overall, proposed R7 does not state a clear, measurable objective, and thus does not meet the attributes of a results-based standard as described in Section 2.4 of the Standards Process Manual. Absent a clearly stated objective, the requirement may not achieve its intended outcome or provide a measurable reliability benefit. Moreover, because the objective is not clearly stated, there is a significant risk that members of the drafting team or stakeholders are in fact working at cross-purposes due to having differing understandings of the objective.

“Develop, maintain, and implement”: The standard should require entities to “implement” a plan, not “develop, maintain, and implement” it. It is impossible to implement a plan without developing and maintaining it; including independent requirements to “develop” and “maintain” the plan simply results in more opportunities for administrative noncompliance, with no benefit to reliability. We recognize that the SDT is using the same language as the existing requirements in the standard, but doing so unnecessarily perpetuates a preexisting mistake; the SDT should instead correct the mistake throughout the standard.

For the sake of clarity, R7.1 should be revised to refer to “specific” rather than “unique” factors: “Generating unit(s) freeze protection measures based on specific factors such as geographical location and plant configuration.”

The drafting team should also revise the data/evidence retention requirements in the standards in accordance with the recommendations from the Standards Efficiency Review Project. See item 9 from the December 2019 Standards Committee meeting materials.

Finally, with respect to EOP-011, proposed R7.4, it is not at all clear from the balance of proposed R7 what, if any, “roles and responsibilities of site personnel” would be “contained in the cold weather preparedness plan.” If the objective is for plant operating personnel (i.e. *GOP*

personnel) to understand the freeze protection measures implemented at the generator, then the subrequirement should read “Inform Generator Operator(s) with responsibility for Generator Owner’s BES generator(s) of freeze protection measures in place at the applicable BES generator(s).” To the extent that the SDT believes that training of GO and/or GOP personnel is necessary, any such requirements belong in PER-006, not EOP-011.

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) The use of the facility section is correctly used to help entities understand the term “generating unit” within the EOP-011-2 standard. This term is not used in other locations. (2) Please see the SDT’s updated modifications to draft 2 standard. (3) Changes are proposed to the Rules of Procedure to address this evidence retention recommendation throughout the Reliability Standards. Until such time that those proposed changes are approved, the SDT has maintained consistency with the other data retention language in the standard.

Wayne Sipperly - North American Generator Forum - 5 - MRO,WECC,Texas RE,NPCC,SERC,RF

Answer

Document Name

Comment

The NAGF recommends that R1.2 of EOP-011-2 be supplemented with, “Identification of essential fuel supply infrastructure that shall not be subject to load shedding, including natural gas pipeline compressor stations, LNG storage plants, natural gas processing plants, natural gas field wellhead compressors and other critical gas system components.” This verbiage is drawn from NERC’s Reliability Guideline Gas and Electrical Operational Coordination Considerations (see p.4, https://www.nerc.com/comm/OC_Reliability_Guidelines_DL/Gas_and_Electrical_Operational_Coordination_Considerations_20171213.pdf)

The NAGF requests that the phrase “any other extreme weather conditions” used in Requirement 1.2.6.2 be clarified or removed.

The NAGF requests clarification regarding the Requirement 7.3.1 request for “Generating unit(s) operating limitations in cold weather”. We suggest that NERC specify that this requirement pertains only to known and predictable operating impacts for cold weather that affect plant

capacity, start-up, or operational reliability. There are numerous cold weather vulnerabilities that cannot be accurately predicted and therefore should not be incorporated in planning models. Examples of such cold weather operating limitations include:

- River ice formations that impact generator water inlets
- Inlet air filters blocked by accumulating/drifted snow
- NG pipeline pressure fluctuations

The NAGF supports the option of allowing the Generator Owners to provide generator unit minimum design temperature (R7.3.2.1) or minimum demonstrated historical cold weather performance data (R7.3.2.2) as defined in EOP-011. The Reliability Coordinator (RC) and Transmission Operator (TOP) data specification plans need to enable submittal of the generator unit data accordingly.

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the SDT's updated modifications to the EOP-011-2 standard. In addition, please see the supporting documents (Technical Rationale and Implementation Guidance).

Brian Evans-Mongeon - Utility Services, Inc. - 4

Answer

Document Name

Comment

Utility Services supports the comments posted by the TAPS group.

Likes 0

Dislikes 0

Response

Please see the SDT's response to the TAPS Group.

Dennis Sismaet - Northern California Power Agency - 6

Answer

Document Name

Comment

We are not clear how this proposal is going to result in reliability improvements, only more costs and administrative burdens for everyone, especially our members.

The SDT has not provided any proposed reliability improvements or cost estimates. No mention of improving BA/RC weather/load forecasting during anticipated cold weather periods. No mention of increasing BA/RC controlled reserves for improved reliability, no mention in starting BA/RC controlled generation ahead of time to warm up equipment to improve reliability.

And the proposal does not require TOP or RC to use any data they will be required to obtain from GO/GOPs.

Additionally, the proposals do not require BAs, RCs, or TOPs to learn, or train anyone, on how to use the Cold Weather data that the SDT is proposing they be forced by NERC Standards to request from GO/GOPs.

Likes 0

Dislikes 0

Response

Thank you for your comments. Although the SDT understands that cold weather is normally expected, if the proper cold weather preparations are not implemented and maintained, the cold weather can result in an emergency such as those experienced in 2011, 2014, 2018 and the recent issues in Texas. Additionally, the training is up to the entity. The importance is that the personnel have an awareness of how to handle situations in the event of cold weather. See the examples within the measures for assistance.

Jennifer Bray - Arizona Electric Power Cooperative, Inc. - 1

Answer

Document Name	
Comment	
<p>Please consider using a basis of/from the NOAA Extreme Weather events, which are based on regional climate centers, statistical models, and scientific data to define “cold weather,” “extreme weather conditions,” and “cold weather conditions”.</p> <p>Thank you for the opportunity to comment.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Thank you for your comments. The SDT’s drafted the requirements in a way that provide entities with flexibility. There is not requirement that does not allow entities to use the NOAA Extreme Weather Events information within your cold weather preparedness plan.</p>	
<p>Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority</p>	
Answer	
Document Name	
Comment	
<p>If the purpose of this project is for TOPs, BAs, and RCs to have awareness of generation operating limits during Cold Weather, there needs to be requirements for TOPs, BAs, and RCs to be trained on what to do with / how to use the information required from the GOs.</p>	
Likes 1	Tennessee Valley Authority, 5, Thomas M Lee
Dislikes 0	
Response	

Thank you for your comments. The training is up to the entity. The importance is that the personnel have an awareness of how to handle situations in the event of cold weather. See the examples within the measures for assistance. There are no requirements that restrict an entity from providing awareness training for TOPs, BAs, and RCs.

Don Stahl - Black Hills Corporation - 3

Answer

Document Name

Comment

comments submitted

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer

Document Name

Comment

For the sake of clarity, R7.1 should be revised to refer to “specific” rather than “unique” factors: “Generating unit(s) freeze protection measures based on unique specific factors such as geographical location and plant configuration.”

With respect to EOP-011, proposed R7.4, it is not at all clear from the balance of proposed R7 what, if any, “roles and responsibilities of site personnel” would be “contained in the cold weather preparedness plan.” If the objective is for plant operating personnel (i.e. GOP personnel) to understand the freeze protection measures implemented at the generator, then the subrequirement should read “Inform Generator Operator(s) with responsibility for Generator Owner’s BES generator(s) of freeze protection measures in place at the applicable BES

generator(s).” To the extent that the SDT believes that training of GO and/or GOP personnel is necessary, any such requirements belong in PER-006, not EOP-011.

Likes 0

Dislikes 0

Response

Thank you for you comments. Please see the SDTs updates to EOP-011. Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard. Additionally, please see the updated standards with the SDT’s attempt to provide additional clarity.

Julie Hall - Entergy - 6, Group Name Entergy

Answer

Document Name

Comment

Following are comments, suggestions and questions related to EOP-011

Comment 1: Entergy agrees with most of the changes to this standard, except the cold weather parameter (minimum design temp or 5 year average). The minimum design temp. is 32F for all units, but we deploy measures to keep unit on-line at temperatures well below that.

Comment 2:

R7.1 – add “designed” to describe freeze protection measures.. “Generating unit(s) **designed** freeze protection measures based on”. Temporary provisions added to further harden the cold weather capability are not part of the permanent plant configuration and change as conditions at the site vary.

R7.2 – add ““designed” to describe freeze protection measures.. “Annual maintenance and inspection of generating unit(s) **designed** freeze protection measures”. Temporary provisions are erected and installed, but do not have annual maintenance. Conversely, temporary provisions typically require frequent inspection, often daily or more.

The point is permanently designed plant equipment is maintained and controlled differently from the temporary provisions needed to operate at freezing conditions and must have different maintenance and inspections applied to ensure the effectiveness. Bear in mind freeze protection measures include more than just heat trace. Permanent equipment design includes doors, door seals, insulation, heaters, intake screens (frazil ice), instrument cabinet heaters, ventilation louvers connected to ambient and heaters near the louvers, design features to protect exposed air systems (ventilation, isophase duct, compressed air) from condensation or icing, dewpoint and moisture monitors, design features to prevent forced draft cooling fan/cooling tower icing, intake water (frazil ice) features, and temperature and wind monitoring. Freeze protection measures also includes temporary structures (tenting), heat lamps, de-icing equipment, and heaters. Finally, systems (e.g. cooling towers) will require specified operating configurations that will change as icing conditions require.

As an example, if the wind was from a specified direction and speed, temperature was within a range favorable for ice accretion, and observations showed ice was forming on the electrical insulators, the plant was required to shut down. To help preclude shutdowns, we installed temporary heat lamps at the base of the insulators. If the temperature dropped enough, ice accretion would not occur. That is why I think it is important to bound and clarify what is meant by “freeze protection measures”.

7.3.2. Generating unit(s):

7.3.2.1. minimum design temperature; or

*Is this referring to the lowest **ambient** temperature at which the generating unit can continually operate at full power using permanently installed equipment while not crediting temporarily installed freeze protection measures ?*

It should be noted that the Nuclear BUs are required to adhere to NRC requirements that stipulate operating the plant safely and being able to safely shut down the unit. There could be instances when the NERC standard may conflict with the NRC requirements with regards to the minimum design temperature discussed in 7.3.2.1.

7.3.2.2. minimum demonstrated historical performance during cold weather in the previous 5 years.

Is this referring to minimum ambient temperature that the generating unit successfully operated at full power in each of the previous 5 years while crediting temporarily installed freeze protection measures ?

7.4. Awareness training on the roles and responsibilities of site personnel contained in the cold weather preparedness plan.

Is the population of the awareness training limited to those who operate the plant?

What is the required frequency or periodicity of conducting the awareness training?

Likes 0

Dislikes 0

Response

Thank you for your comments. (1) The SDT removed 5 years from EOP-011. Please see other modifications to the EOP-011 standard. (2) The awareness training is up to the entity on how it is conducted and the timeframe on how often training is required.

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer

Document Name

Comment

Texas RE has the following additional comments:

- The SDT should consider adding requirements to perform seasonal studies to assess expected conditions and the impacts of extreme weather or events for these expected conditions. There is currently no analysis required between the near-term transmission planning horizon (one year out) and the OPA/next day Operating Plans. The near-term transmission planning horizon analysis may be performed too far out to incorporate expected conditions, while OPA/next day Operating Plans may be performed too close to Real-time to address identified issues.

- The SDT should consider adding requirements for the PC and TP to collect data related to design specifications and operating limitations and incorporate this data into its planning studies. Due to the nature of issues related to cold weather operating limitations, awareness of these issues is needed as far out as possible to take action to remediate these issues.

Texas RE inquires as to whether the drafting team considered any winter weatherization or extreme weather requirements (for example, a backup generator) for GOPs at Control Centers. For example, do Control Centers over a certain threshold or that operates certain high-risk generators need to have some winter or extreme weather plan to account for thing like loss of power, personnel shortages, water outages, or building damage?

Likes 0

Dislikes 0

Response

In consideration of feedback received from industry, the SDT made changes to EOP-011, IRO-010 and TOP-003 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved. The SDT will pass the seasonal studies recommendation to NERC staff for future drafting considerations.

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer

Document Name

Comment

The drafting team should ensure the new requirements are technology agnostic and apply to all resources necessary to maintain reliability. There have been several SARs lately to address this issue in other standards.

There isn't 'linkage' for the GO facility to go the PC/TP. A PC/TP may add this data into the MOD-032 requirements to plan in the Planning Horizon.

For EOP-011-2

4.2 Facilities:

Recommend the following to give clear guidance to what generators are to be in the GO's cold weather plan (this is currently approved on MOD-025-2).

For the purpose of this standard, the term, "applicable Facility" shall mean any one of the following:

4.2.1, All BES generators. This is a simple and to-the-point Applicability statement.

Part 1.2.6 Recommend that Part 1.2.6 not be updated as proposed and kept as currently approved in EOP-011-1, since "Reliability impact of extreme weather conditions" covers all weather conditions. Plus, "reliability impacts" are outputs of data that the TOP should be giving in TOP-003.

Part 2.2.9 Recommend that Part 2.2.9 not be updated as proposed and kept as currently approved in EOP-011-1, since "Reliability impact of extreme weather conditions" covers all weather conditions. Plus, "reliability impacts" are outputs of data that the BA should be giving in TOP-003.

Implementation Plan

Please note that Compliance Application Notice [\(CAN\) – 0012](#) is still active and may impact the Implementation Plan. Recommend the Implementation Plan to read:

General Considerations This implementation plan provides that entities shall have twelve months to become compliant with the revised Reliability Standards after the new effective date. And continues to read:

This implementation plan also reflects consideration that entities will need time to develop, and distribute revised data specifications to affected entities (per IRO-010-4 and TOP-003-5), revised data specifications and for receiving entities to develop the necessary capabilities in order to comply with revised data specifications.

Does FAC-008 need to be modified to call out cold weather ratings?

o The documentation shall contain assumptions used to rate the generator and at least one of the following:

- o Design or construction information such as design criteria, ratings provided by equipment manufacturers, equipment drawings and/or specifications, engineering analyses, method(s) consistent with industry standards (e.g. ANSI and IEEE), or an established engineering practice that has been verified by testing or engineering analysis.
- o Operational information such as commissioning test results, performance testing or historical performance records, any of which may be supplemented by engineering analyses.

Likes 0

Dislikes 0

Response

Thank you for your comment. In consideration of feedback received from industry, the SDT made changes to EOP-011, IRO-010 and TOP-003 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved. The SDT does not believe maintenance or design changes related to items such as freeze protection measures are appropriate for the FAC standards- such as FAC-008, which focuses on Facilities Ratings related to the generator and interconnection equipment. The areas for freeze protection measures focus on the boiler, support systems, and balance of plant which is also outside the scope and intentions of the FAC and MOD standards.

You are correct that CAN-012 is still active. The new requirements for this project would become effective on the effective date (absent any special guidance in the implementation plan).

Michael Brytowski - Great River Energy - 3

Answer

Document Name

Comment

GRE supports the comments of the NSRF

GRE is voting negative on the current first draft of the NERC Cold Weather project. This project and associated Reliability Standards will go through several drafts before it is finalized. The NERC standard development process is structured to ensure that industry has quality standards that meet the needs for the reliability planning and Reliable Operation of the North American Bulk Power Systems.

GRE fully supports NERC and the standards drafting team on the current Cold Weather project. The Cold Weather project does not consider the events that occurred in Texas resulting from the recent polar vortex, nor does GRE’s position on the first draft of the project reflect GRE’s commitment to the development of future cold weather Reliability Standards ensuring the reliability and resiliency of the North American Bulk Power System.

Likes	0
Dislikes	0

Response

Please see the SDT’s response to MRO NSRF. Based on the recent directive by the NERC Board to complete the cold weather standard by June 2021, the SDT will provide you input regarding the recent events to NERC staff. The recent events are current in the “inquiry” stage and a report on the inquiry will be posted in the future. It is important that entities focus on their cold weather plans at this point in time.

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	
Document Name	

Comment

We are not clear how this proposal is going to result in reliability improvements, only most costs and administrative burdens for everyone, especially our members.

The SDT has not provided any proposed reliability improvements or cost estimates. No mention of improving BA/RC weather/load forecasting during anticipated cold weather periods. No mention of increasing BA/RC controlled reserves for improved reliability, no mention is starting BA/RC controlled generation ahead of time to warm up equipment to improve reliability.

And the proposal does not require TOP or RC to use any data they will be required to obtain from GO/GOPs.

Additionally, the proposals do not require BAs, RCs, or TOPs to learn, or train anyone, on how to use the Cold Weather data that the SDT is proposing they be forced by NERC Standards to request from GO/GOPs.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021. Lastly, nothing in the standards prohibit entities from training anyone regarding the BA's, RC's or TOPS.

Richard Jackson - U.S. Bureau of Reclamation - 1

Answer

Document Name

Comment

Reclamation does not agree that cold weather should be added universally to reliability standards. Hydroelectric plants have been operating reliably in various extreme temperature bands for over 100 years.

EOP-011 Requirement R7 identifies that Generator Owners shall develop and implement cold weather plans. Reclamation objects to the vague term "cold weather." The term is subjective and unclear. What may be "cold" in one region may be "normal" in another; what may be "cold" to humans may have no effect on generating equipment. Does "cold weather" involve precipitation, wind, temperature fluctuations, etc.? Reclamation recommends the term "cold weather" be defined in terms of its expected effect on generating equipment to address the objective of the cold weather modifications; that is, preventing weather-related detriments to reliability.

Reclamation recommends the SDT clarify the "cold weather data" identified in Requirement R7.3. What are the requirements for reporting cold weather data? When does the 5-year clock begin? What data is actually required? The language in R7.3.2.2 is more appropriate to be

contained in a data specification from a Transmission Operator or Balancing Authority; therefore, Reclamation recommends R7.3.2.2 be deleted from EOP-011 and the language placed in TOP-003.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021. Please see the updated EOP-011 standard, which addresses some of your concerns around clarity.

Kim Thomas - Duke Energy - 1,3,5,6 - SERC,RF, Group Name Duke Energy

Answer

Document Name

Comment

None.

Likes 0

Dislikes 0

Response

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter

Answer

Document Name

Comment

N/A	
Likes	0
Dislikes	0
Response	
Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	
Document Name	
Comment	
<ul style="list-style-type: none"> The title should be revised from “Emergency Preparedness” to “Emergency Operations and Preparedness” to capture the full scope of EOP-011. “Any other extreme weather conditions” in EOP-011 Requirement 1.2.6.2 and 2.2.9.2 should be re-worded to “other extreme weather conditions”. Including the word “any” potentially expands the scope of this project. Additionally, the SDT should provide additional clarification of the meaning of “other extreme weather conditions” in the RSAW. 	
Likes	0
Dislikes	0
Response	
Thank you for your comments. The SDT updated the title to reflect your proposal. In addition, modifications have been made to the EOP requirement respective parts mentioned in your comments. Please see the updated standard. The SDT will provide your feedback regarding the RSAW to NERC Compliance for consideration.	
Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1	
Answer	
Document Name	
Comment	

More specificity is needed in Part 7.3 as to what will be required to show a generators operating limitations in cold weather.

Likes 0

Dislikes 0

Response

Thank you for your comments. Please see the updated standard for the additional clarity made by the SDT.

Leonard Kula - Independent Electricity System Operator - 2

Answer

Document Name

Comment

N/A.

Likes 0

Dislikes 0

Response

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

Document Name

Comment

BPA supports Reclamation's additional comments.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021. Lastly, nothing in the standards prohibit entities from training anyone regarding the BA's, RC's or TOPS.

Marty Hostler - Northern California Power Agency - 5

Answer

Document Name

Comment

We are not clear how this proposal is going to result in reliability improvements, only most costs and administrative burdens for everyone, especially our members.

The SDT has not provided any proposed reliability improvements or cost estimates. No mention of improving BA/RC weather/load forecasting during anticipated cold weather periods. No mention of increasing BA/RC controlled reserves for improved reliability, no mention is starting BA/RC controlled generation ahead of time to warm up equipment to improve reliability.

And the proposal does not require TOP or RC to use any data they will be required to obtain from GO/GOPs.

Additionally, the proposals do not require BAs, RCs, or TOPs to learn, or train anyone, on how to use the Cold Weather data that the SDT is proposing they be forced by NERC Standards to request from GO/GOPs.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT's scope is to focus on "The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018". Anything outside of cold weather is outside of our Standards Authorization Request (SAR). Anyone is welcome to draft

a SAR and submit to the standards committee for consideration. Link to the SAR Form on the NERC Website:

<https://www.nerc.com/pa/Stand/Resources/Documents/SAR.DOCX>

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; John Merrell, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Marc Donaldson, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Ozan Ferrin, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; Terry Gifford, Tacoma Public Utilities (Tacoma, WA), 3, 1, 4, 5, 6; - Jennie Wike, Group Name Tacoma Power

Answer

Document Name

Comment

Tacoma Power recognizes that the SAR for Project 2019-06 only authorizes the SDT to consider cold-weather related impacts. However, there are other extreme weather events, like the heat wave event experienced in August 2020 in California, which might warrant a new specific suite of Standard(s) that analyze extreme weather event vulnerabilities of generating units. If the SDT utilizes the model of Project 2013-03 (Geomagnetic Disturbance Mitigation), then it may be easier in the future to include additional extreme weather events in the vulnerability assessments, if needed. This approach (i.e., perform vulnerability assessment, identify risks, communicate results, and then implement corrective actions if needed) could potentially resolve other entity’s concerns about EOP-011 R7 requiring unnecessary or not applicable corrective actions. Tacoma Power seeks the SDT’s feedback on whether an approach similar to Project 2013-03 is feasible.

If the SDT decides to keep EOP-011 R7 as currently written, then Tacoma Power recommends deleting “Real-Time Operations” from the Time Horizon. None of the R7 sub-parts are related to the identified Time Horizon of Real-Time Operations. These activities are more closely related to the Operations Planning or Long-Term Planning Time Horizons.

Likes 2

Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott; Snohomish County PUD No. 1, 3, Chaney Holly

Dislikes 0

Response

Thank you for your comments. The SDT’s scope is to focus on “The South Central United States Cold Weather Bulk Electric System Event of January 18, 2018”. Anything outside of cold weather is outside of our Standards Authorization Request (SAR). Anyone is welcome to draft a SAR and submit to the standards committee for consideration. Link to the SAR Form on the NERC Website:

<https://www.nerc.com/pa/Stand/Resources/Documents/SAR.DOCX>

Matthew Nutsch - Seattle City Light - 1,3,4,5,6 - WECC	
Answer	
Document Name	
Comment	
<p>Seattle City Light is prepared to ballot in the affirmative for these Standard revisions once the term “cold weather” is clarified to apply to “abnormally cold weather” and the documentation and annual inspection requirements of EOP-011 likewise are clarified to focus on protections implemented for operation during “abnormally cold weather” and references to “freezing” (which imply a continent-wide definition of what is “cold weather”) are deleted.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021.</p>	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Cold Weather	
Answer	
Document Name	
Comment	
<p>As stated above, WECC recommends that requirements in IRO-008-2 and TOP-002 should be added for RCs, and TOPs to consider upcoming severe weather events in their Operational Planning Analyses. A requirement should also be added for the BAs to be aware of upcoming weather conditions and associated impacts to the generation fleet in their BA area so they appropriate Operating Plans could be developed.</p>	

In addition, WECC believes that the appropriate winterization requirements for generation units should be coordinated between the Generation Owners, Transmission Planners and Planning Coordinators.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT has modified for the inclusion of BAs. Please see the updated standards.

Patricia Lynch - NRG - NRG Energy, Inc. - 5

Answer

Document Name

Comment

With regards to development and implementation of these new requirements, NRG respectfully requests NERC to address the winter preparedness recommendations and remain independent of adequacy issues, where jurisdiction resides with the states.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021.

Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6

Answer

Document Name

Comment

It is suggested that any NERC/FERC investigation regarding the February 2021 severe cold weather be tracked and recommendations should be incorporated into this project.

The SDT efforts with this project are appreciated

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021. Due to this recent mandated deadline, the SDT has worked to get the cold weather preparedness plans in place and other modifications will be made in the near future once the inquiry from the recent events is published, further considerations will be made.

Dan Roethemeyer - Vistra Energy - 5

Answer

Document Name

Comment

EOP-011-2, R7.3 - more specificity would be helpful. It's not clear what constitutes "operating limitations".

TOP-003-5 says the TOP can ask the GOP for 'expected limitations' during cold weather based on design specifications or historical performance. This sounds like the same requirement of EOP-011-2 to require a cold weather plan that includes cold weather design or historical limitations. The concern is that three different entities (TOP, RC, GOP) are collecting cold weather data. It would make sense to coordinate so the GOP does not have to create three "cold weather plans". These three Standards should make clear there is only one "cold weather plan" required.

Same comment for IRO-010 as for TOP-003.

Likes 0

Dislikes 0

Response

Thank you for your comments. The SDT provided flexibility for entities to identify areas within their cold weather plans to work for their geographical region.

Tyson Archie - Platte River Power Authority - 5

Answer

Document Name

Comment

Platte River Power Authority requests clarification for EOP-011-2 Requirement R7 Part 7.4 - awareness training on the roles and responsibilities of personnel. The implementation plan states “conduct awareness training on the roles and responsibilities of personnel under Requirement R7 Part 7.4 by the effective date of the Reliability Standard”. Does this imply that no refresher or on-going training is required in the Generator Owner’s cold weather preparedness plan?

Likes 1

Platte River Power Authority, 3, Kiess Wade

Dislikes 0

Response

The SDT understands your concerns and has modified the training requirements and consolidated the training requirements to a single requirement within EOP-11. Industry feedback supports keeping all requirements associated with GO and GOP cold weather preparation, including awareness training, in EOP-011. Based on other industry feedback, the SDT determined that EOP-011 remains the right location for the awareness training requirement. This allows the new cold weather GO and GOP modifications to remain together in one standard.

Todd Bennett - Associated Electric Cooperative, Inc. - 3

Answer

Document Name	
Comment	
AECI supports the objectives of the project and the drafting team's efforts.	
Likes 0	
Dislikes 0	
Response	
Thank you for your support.	
Michael Courchesne - Michael Courchesne On Behalf of: Michael Puscas, ISO New England, Inc., 2; - Michael Courchesne	
Answer	
Document Name	
Comment	
ISO-NE further suggests:	
<ul style="list-style-type: none"> Removal of the word “any” in proposed EOP-011 sub-requirement 1.2.6.2 and 2.2.9.2; and use the wording “other extreme weather conditions”. The concern is the word “any” makes this requirement very broad and open to interpretation. Retain the current title: EOP-011-1 Emergency Operations. This request is due to the required inherent preparedness needed for operations; and R5 and R6 meeting the Time Horizon: Real-Time Operations. Suggest removing “Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather,” from IRO-010 R1.3 and including it in TOP-003. Leaving the IRO-010 R1.3 to state “Provisions for notification of expected BES generating unit operation limitations during local forecasted cold weather.” 	
Likes 0	
Dislikes 0	
Response	

Thank you for your comments. In consideration of feedback received from industry, the SDT made changes to EOP-011, IRO-010 and TOP-003 to provide consistency, clarity and flexibility given the varied weather conditions of all the entities involved. Please see the updated modifications to EOP-011, which address most of your concerns. The SDT determined the Requirement R7 is needed to provide additional minimum requirements of what is expected in the entities cold weather preparedness plan.

Kevin Conway - Public Utility District No. 1 of Pend Oreille County - 1

Answer

Document Name

Comment

This continues to be an effort to force every GO to meet requirements that are a problem for a subset of the GO's. Generation plants are built to operate with consideration to certain risks. Those entities that are in areas that may have extreme cold weather problems have chosen to take on that risk by not installing equipment that would protect them during extreme weather events. Windmills and Gas Plants that lack cold weather protection should be encouraged to retrofit, or have plans. Conversely, it is not appropriate to require northern located hydro plants to put shelfware processes in place, and be subject to compliance obligations because some in the industry fail to take reasonable precautions.

Likes 0

Dislikes 0

Response

Thank you for your comments. As the SDT has stated in previous responses to industry, it is understood there will be different levels of cold weather preparations based on plant location and configuration. It is also understood that since some plants already practice cold weather readiness, there is no development needed other than ensure that the existing plan meets the conditions of the revised standard(s). In addition, the NERC Board has directed a completion of the cold weather project by June 2021.

Donald Lock - Talen Generation, LLC - 5

Answer

Document Name

Comment

Talen recommends that R1.2 of EOP-011-2 be supplemented with, “Identification of essential fuel supply infrastructure that shall not be subject to load shedding, including natural gas pipeline compressor stations, LNG storage plants, natural gas processing plants, natural gas field wellhead compressors and other critical gas system components.” This verbiage is drawn from NERC’s Reliability Guideline Gas and Electrical Operational Coordination Considerations (see p.4, <https://www.nerc.com/comm/OC Reliability Guidelines DL/Gas and Electrical Operational Coordination Considerations 20171213.pdf>)

The NAGF requests that the phrase “any other extreme weather conditions” used in Requirement 1.2.6.2 be clarified or removed.

Talen requests clarification regarding the Requirement 7.3.1 request for “Generating unit(s) operating limitations in cold weather”. We suggest that NERC specify that this requirement pertains only to known and predictable operating impacts for cold weather that affect plant capacity, start-up, or operational reliability. There are numerous cold weather vulnerabilities that cannot be accurately predicted and therefore should not be incorporated in planning models. Examples of such cold weather operating limitations include:

- River ice formations that impact generator water inlets
- Inlet air filters blocked by accumulating/drifted snow

NG pipeline pressure fluctuations

Likes	1	Associated Electric Cooperative, Inc., 3, Bennett Todd
Dislikes	0	
Response		
Please see the SDT’s response to NAGF.		
John Allen - City Utilities of Springfield, Missouri - 1,3,4		
Answer		
Document Name		
Comment		

The drafting team should ensure the new requirements are technology agnostic and apply to all resources necessary to maintain reliability. There have been several SARs lately to address this issue in other standards. Perhaps the BES definition could be referenced to establish the scope of resources applicable to the standard.

The drafting team should also revise the data/evidence retention requirements in the standards in accordance with the recommendations from the Standards Efficiency Review Project. See item 9 from the December 2019 Standards Committee meeting materials.

Likes 1	Associated Electric Cooperative, Inc., 3, Bennett Todd
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Dislikes 0	
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Response

Thank you for your comments. Changes are proposed to the Rules of Procedure to address this evidence retention recommendation throughout the Reliability Standards. Until such time that those proposed changes are approved, the SDT has maintained consistency with the other data retention language in the standard.

Kristina Marriott - First Solar, Inc. - 5

Answer

Document Name

Comment

Does wind and solar differ in these requirements?

We would like some direction on how wind and solar may differ in freeze protection, inspections and maintenance activities in comparison to traditional generation.

Likes 0	
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Dislikes 0	
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Response

Thank you for your comments. Solar facilities may have little to no preparation related to cold weather. The need to develop any form of cold weather preparedness plan will be based on the climate of your geographical location and operating experience of the facility.

Scott McGough - Georgia System Operations Corporation - 3

Answer

Document Name

[2019-06_Cold_Weather_Comments_FINAL_GSOC_SBFCB03-11-21.docx](#)

Comment

Likes 0

Dislikes 0

Response

Thank you for your comment. The SDT determined to not define cold weather as a glossary term. This will be defined with your cold weather preparedness plan based on your geographical regions.

Comments received from Scott McGough, Georgia System Operations Corporation

Questions:

1. The SDT placed the Generator Owner cold weather preparedness plan(s) requirements within EOP-011. Do you agree with this new requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Yes

No

Comments:

- Although requirements R1 and R2 require TOPs and BAs to submit their plans for RC approval, the proposed requirement R7 does not have a corresponding requirement for GOs to submit their plans to the BA or TOP for approval. Such coordination at the BA and TOP area level is critical to ensuring that GO plans are properly evaluated for each of the areas within which its

plants operate and well-coordinated with all entities responsible for the overall reliability of the grid. While RCs have ultimate authority and oversight, BAs and TOPs also have obligations to maintain reliability within their areas. The coordination of GO plans with BAs and TOPs as well as RCs during extreme weather events will allow such GO plans to be considered during the operational planning of all responsible entities, ensuring more cohesive, coordinated operational planning between and amongst all responsible entities.

- To ensure cohesiveness, the training requirements (requirement R7.4) should be added to PER standards versus being scattered within other standard families.

2. The SDT placed the Reliability Coordinator data specification requirements within IRO-010. Do you agree with this modified requirement placement in the IRO-010 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Yes

No

Comments:

- New requirement R1.3 feels overly specific and redundant of R1.1. It singles out activities surrounding cold weather, but does not address other extreme weather conditions that could affect grid conditions, e.g., extreme heat, humidity, and rain/wind events. GSOC respectfully suggests that the entire sub-requirement could be more effective as an example listed under R1.1.

3. The SDT placed the Transmission Operator data specification requirements within TOP-003. Do you agree with this modified requirement placement in the TOP-003 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Yes

No

Comments:

- New requirement R1.3 feels overly specific and redundant of R1.1. It singles out activities surrounding cold weather, but does not address other extreme weather conditions that could affect grid conditions, e.g., extreme heat, humidity, and rain/wind events. GSOC respectfully suggests that the entire sub-requirement could be more effective as an example listed under R1.1.

4. The SDT placed the Balancing Authority data specification requirements within EOP-011. Do you agree with this modified requirement placement in the EOP-011 standard? If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Yes

No

Comments:

- Requirements R1.2.6 and R2.2.9 narrowly focus on cold weather amid existing references to extreme weather. While these would be demonstrative as examples, the current structure seems redundant.

5. EOP-011-2 (Requirement R7 Part 7.2): The SDT suggest maintenance and inspection be, at a minimum, an annual requirement. Does the requirement provide enough specificity for an industry wide standard?

Yes

No

Comments:

6. The SDT modified the Implementation Plan to allow twelve (12) months following the effective date to become compliant with EOP-011, IRO-010, and TOP-003. If you do not agree, please provide an alternative. If you agree but have comments or suggestions on the SDT's recommendation, please provide your explanation and suggested language.

Yes

No

Comments:

7. Proposed TOP-003-5 Requirement R1 and IRO-010-4 Requirement R1 would require TOPs and Reliability Coordinator to maintain cold weather parameter. For consistency with the data specification requirements and to ensure the BA has the necessary information to perform its analysis during cold weather, do you believe that similar parameters should be required? Please provide your reasoning as to why it should be required or should not be required.

Yes

No

Comments:

8. Please provide any additional comments for the SDT to consider, if desired.

Comments:

Additional remarks on Proposed EOP-011-2

- Cold weather and minimum performance terms are not defined. It is suggested the SDT consider defining both terms to ensure consistent understanding as well as consistent approaches and focus regarding reliability benefits.

End of Report