



#### VIA OVERNIGHT MAIL

Sheri Young, Secretary of the Board National Energy Board 517 – 10<sup>th</sup> Avenue SW Calgary, Alberta T2R 0A8

Re: North American Electric Reliability Corporation

Dear Ms. Young:

The North American Electric Reliability Corporation hereby submits Informational Filing of the North American Electric Reliability Corporation Regarding Implementation of Reliability Standard TPL-001-4 Table 1, Footnote 12. NERC requests, to the extent necessary, a waiver of any applicable filing requirements with respect to this filing.

Please contact the undersigned if you have any questions concerning this filing.

Respectfully submitted,

/s/ Shamai Elstein

Shamai Elstein Senior Counsel for the North American Electric Reliability Corporation

Enclosure

3353 Peachtree Road NE Suite 600, North Tower Atlanta, GA 30326 404-446-2560 | www.nerc.com

#### **RELIABILITY** | ACCOUNTABILITY

#### BEFORE THE NATIONAL ENERGY BOARD

#### NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

)

)

#### INFORMATIONAL FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION REGARDING IMPLEMENTATION OF RELIABILITY STANDARD TPL-001-4 TABLE 1, FOOTNOTE 12

Shamai Elstein Senior Counsel Lauren A. Perotti Counsel North American Electric Reliability Corporation 1325 G Street, N.W., Suite 600 Washington, D.C. 20005 (202) 400-3000 (202) 644-8099– facsimile shamai.elstein@nerc.net lauren.perotti@nerc.net

Counsel for the North American Electric Reliability Corporation

April 6, 2018

#### BEFORE THE NATIONAL ENERGY BOARD

)

)

#### NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

#### INFORMATIONAL FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION REGARDING IMPLEMENTATION OF RELIABILITY STANDARD TPL-001-4 TABLE 1, FOOTNOTE 12

Consistent with paragraph 30 of the Federal Energy Regulatory Commission's ("FERC") Order No. 786,<sup>1</sup> the North American Electric Reliability Corporation ("NERC") hereby submits a report on the use of Reliability Standard TPL-001-4 Table 1, footnote 12. Footnote 12 permits the use of Non-Consequential Load Loss<sup>2</sup> as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon of the Planning Assessment under certain conditions. In Order No. 786, FERC approved Reliability Standard TPL-001-4 - Transmission System Planning Performance Requirements and directed NERC to, among other things, report on entity use of footnote 12. To address FERC's directive, NERC submits a TPL-001-4 Table 1, footnote 12 Implementation Study attached hereto as **Attachment 1**.

<sup>2</sup> Unless otherwise designated, capitalized terms shall have the meaning set forth in the *Glossary of Terms Used in NERC Reliability Standards* ("NERC Glossary of Terms"), *available at* https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary of Terms.pdf.

<sup>&</sup>lt;sup>1</sup> *Transmission Planning Reliability Standard*, Order No. 786, 145 FERC ¶ 61,051 (Oct. 17, 2013) ("Order No. 786").

#### I. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:

Shamai Elstein Senior Counsel Lauren A. Perotti Counsel North American Electric Reliability Corporation 1325 G Street, N.W., Suite 600 Washington, D.C. 20005 (202) 400-3000 (202) 644-8099– facsimile shamai.elstein@nerc.net lauren.perotti@nerc.net

John Moura Director of Reliability Assessment and System Analysis North American Electric Reliability Corporation 3353 Peachtree Road, N.E. Suite 600, North Tower Atlanta, GA 30326 (404) 446-9731 (404) 446-2595 – facsimile john.moura@nerc.net

#### II. BACKGROUND

In Order No. 786, FERC approved Reliability Standard TPL-001-4 - Transmission

System Planning Performance Requirements.<sup>3</sup> The standard requires Planning Coordinators and

Transmission Planners to perform planning assessments. Table 1 of the standard contains a series

of planning events and describes system performance requirements for a range of potential

system contingencies required to be evaluated by the planner. Footnote 12 and the referenced

Attachment 1 provide specific parameters for the permissible use of planned Non-Consequential

Load Loss to address Bulk Electric System performance issues. These parameters include:

- firm limitations on the maximum amount of load that an entity may plan to shed;
- safeguards to ensure against inconsistent results and arbitrary determinations that allow for the planned Non-Consequential Load Loss; and
- a specifically defined, open and transparent, verifiable, and enforceable stakeholder process.

3

Order No. 786 at P 1.

Reliability Standard TPL-001-4 was developed in response to FERC guidance and

directives and was informed by the results of a data request analyzing the use of a previously

enforceable version of the load loss footnote. In its filing of TPL-001-4, submitted on March 19,

2013, NERC noted that it did not have data on the frequency of use of the new footnote 12 and,

for that reason, committed to monitor use of footnote 12 and report the results of this monitoring

following the first two years of the footnote's implementation. Accordingly, in Order No. 786

FERC directed NERC as follows:

[T]he Commission directs NERC to report on the use of footnote 12 including the use and effectiveness of the local regulatory review and NERC review. This report is important because it will provide an analysis of the use of footnote 12, including but not limited to information on the duration, frequency and magnitude of planned non-consequential load loss, and typical (and if significant, atypical) scenarios where entities plan for non-consequential load loss. Further, the report will serve as a tool to evaluate the usefulness and effectiveness of local regulatory and ERO review, and identify whether MISO's concern [regarding the administrative burden of the footnote 12 process] or other issues arise that need to be addressed.<sup>4</sup>

Reliability Standard TPL-001-4 became effective in the United States on January 1, 2015.

In accordance with the approved implementation plan, entities were required to comply with

Requirements R1 and R7 pertaining to System models and establishing entity responsibilities as

of that date. Entities were required to comply with the remaining standard Requirements R2

through R6 and R8 as of January 1, 2016.

#### **III. REPORT ON IMPLEMENTATION OF FOOTNOTE 12**

Beginning in 2017, NERC conducted a study to determine the frequency and

circumstances surrounding use of Non-Consequential Load Loss as an Element of a Corrective

<sup>4</sup> 

Order No. 786 at P 30.

Action Plan in the Near Term Transmission Planning Horizon of the Planning Assessment under the provisions of TPL-001-4 Table 1, footnote 12 in the United States. To date, NERC has not received a request from an entity under the provisions of TPL-001-4, Attachment 1, Section 3 for a determination of whether there are any Adverse Reliability Impacts caused by the request to utilize footnote 12 for Non-Consequential Load Loss. Therefore, NERC determined that it was necessary to survey U.S.-based Planning Coordinators and Transmission Planners to understand fully the extent of footnote 12 utilization in the United States, including use of footnote 12 in current and future planning years and at levels both above and below the threshold for ERO notification.

First, NERC sent a survey to all registered Planning Coordinators and Transmission Planners in the United States to identify those entities that have used, or planned to use, Non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with Reliability Standard TPL-001-4 Table 1, footnote 12 for the planning years 2016, 2017, or 2018. Based on the results of this survey, NERC conducted a more detailed follow-up survey to those entities who responded in the affirmative to the initial survey. NERC reviewed the information to determine which entities had used, or planned to use, Non-Consequential Load Loss in accordance with footnote 12 and summarized its findings in the attached report.

As described in more detail therein, the data indicates that use of planned Non-Consequential Load Loss in accordance with footnote 12 is rare among U.S.-based entities. Although the data set is limited, the available responses do suggest that Non-Consequential Load Loss is typically used only when alternative solutions, such as capital improvements, are in the process of being implemented or are determined to be infeasible. NERC has not identified any

4

issues regarding implementation of the stakeholder review process described in TPL-001-4 Attachment 1 at this time, although NERC notes that entity experience with these processes to date has been limited.

NERC expects to gain future insights into the implementation of TPL-001-4 Table 1, footnote 12 through the ERO Adverse Reliability Impact determination process identified in TPL-001-4 Attachment 1, as well as its through its compliance oversight activities. NERC also expects to gain additional information on the use of footnote 12 through the Reliability Assessment process and potentially though its committees. Such information would be used to further understand the frequency and circumstances surrounding the use of Non-Consequential Load Loss under footnote 12 in both the United States and other North American jurisdictions as well as to inform future reviews of the TPL-001 standard.

Respectfully submitted,

#### /s/ Lauren A. Perotti

Shamai Elstein Senior Counsel Lauren A. Perotti Counsel North American Electric Reliability Corporation 1325 G Street, N.W., Suite 600 Washington, D.C. 20005 (202) 400-3000 (202) 644-8099– facsimile shamai.elstein@nerc.net lauren.perotti@nerc.net

Counsel for the North American Electric Reliability Corporation

April 6, 2018



# Implementation Study

Use of Non-Consequential Load Loss under Reliability Standard TPL-001-4 Table 1, footnote 12

March 30, 2018

**RELIABILITY | ACCOUNTABILITY** 



3353 Peachtree Road NE Suite 600, North Tower Atlanta, GA 30326 404-446-2560 | www.nerc.com

## **Table of Contents**

Preface	i
Introduction1	•
Use of Non-Consequential Load Loss	
Conclusion	,
Appendices	;
Appendix A: Initial Survey	;
Appendix B: Follow-up Survey6	j

The vision for the Electric Reliability Organization (ERO) Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the eight Regional Entities (REs), is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

The North American BPS is divided into eight RE boundaries as shown in the map and corresponding table below.



The North American BPS is divided into eight RE boundaries. The highlighted areas denote overlap as some load-serving entities participate in one Region while associated Transmission Owners/Operators participate in another.

FRCC	Florida Reliability Coordinating Council	
MRO	Midwest Reliability Organization	
NPCC	Northeast Power Coordinating Council	
RF	ReliabilityFirst	
SERC	SERC Reliability Corporation	
SPP RE <sup>1</sup>	Southwest Power Pool Regional Entity	
Texas RE	Texas Reliability Entity	
WECC	Western Electricity Coordinating Council	

<sup>1</sup> 

Matters regarding the dissolution of the SPP RE are pending in Docket No. RR18-3-000.

## Introduction

On October 17, 2013, the Federal Energy Regulatory Commission ("Commission" or "FERC") issued **Order No. 786**,<sup>2</sup> a final rule approving Reliability Standard TPL-001-4 (*Transmission System Planning Performance Requirements*). Reliability Standard TPL-001-4 requires Planning Coordinators and Transmission Planners to perform planning assessments. The purpose of the standard is to establish Transmission system planning performance requirements within the planning horizon to develop a Bulk Electric System ("BES") that will operate reliably over a broad spectrum of System conditions and following a wide range of probable Contingencies.

Table 1 of TPL-001-4 contains a series of planning events and describes system performance requirements for a range of potential system contingencies the planner is required to evaluate. Footnote 12 of Table 1 provides parameters for the permissible use of planned Non-Consequential Load Loss to address BES performance issues. Specifically, the footnote provides:

An objective of the planning process is to minimize the likelihood and magnitude of Non-Consequential Load Loss following planning events. In limited circumstances, Non-Consequential Load Loss may be needed throughout the planning horizon to ensure that BES performance requirements are met. However, when Non-Consequential Load Loss is utilized under footnote 12 within the Near-Term Transmission Planning Horizon to address BES performance requirements, such interruption is limited to circumstances where the Non-Consequential Load Loss meets the conditions shown in Attachment 1. In no case can the planned Non-Consequential Load Loss under footnote 12 exceed 75 MW for US registered entities. The amount of planned Non-Consequential Load Loss for a non-US Registered Entity should be implemented in a manner that is consistent with, or under the direction of, the applicable governmental authority or its agency in the non-US jurisdiction.<sup>3</sup>

Attachment 1 to the Standard provides that before the use of Non-Consequential Load Loss under Table 1, footnote 12 is allowed as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon of the Planning Assessment, the Transmission Planner or Planning Coordinator shall ensure that the utilization of footnote 12 is reviewed through an open and transparent stakeholder process. Attachment 1 sets forth the requirements for this process, the type of information that must be documented, and the circumstances under which further action must be taken with applicable regulatory bodies and the Electric Reliability Organization.

In Order No. 786, the Commission directed NERC to report on the use of TPL-001-4 Table 1, footnote 12 as follows:

[T]he Commission directs NERC to report on the use of footnote 12 including the use and effectiveness of the local regulatory review and NERC review. This report is important because it will provide an analysis of the use of footnote 12, including but not limited to information on the duration, frequency and magnitude of planned non-consequential load loss, and typical (and if significant, atypical) scenarios where entities plan for non-consequential load loss. Further, the report will serve as a tool to evaluate the usefulness and effectiveness of local regulatory and ERO review, and identify whether MISO's concern [*regarding the administrative burden of the footnote 12 process*] or other issues arise that need to be addressed.<sup>4</sup>

<sup>&</sup>lt;sup>2</sup> Transmission Planning Reliability Standard, Order No. 786, 145 FERC ¶ 61,051 (Oct. 17, 2013) ("Order No. 786").

 <sup>&</sup>lt;sup>3</sup> Reliability Standard TPL-001-4, *available a*t <u>http://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-4.pdf</u>.
<sup>4</sup> Order No. 786 at P 30.

Reliability Standard TPL-001-4 became effective in the United States on January 1, 2015. In accordance with the approved implementation plan, entities were required to comply with Requirements R1 and R7 pertaining to System models and establishing entity responsibilities as of that date. Entities were required to comply with the remaining standard Requirements R2 through R6 and R8 as of January 1, 2016.

#### TPL-001-4 Table 1, FN 12 Survey Methodology

In 2017, NERC conducted a study of Planning Coordinators and Transmission Planners to identify those entities that have used, or planned to use, Non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with Reliability Standard TPL-001-4 Table 1, footnote 12.

NERC sent an initial three-question survey to U.S. Transmission Planners and Planning Coordinators in February 2017. In September 2017, NERC sent a more detailed follow-up survey to those entities who responded in the affirmative to the initial survey.

NERC reviewed the information and documents provided, conducting additional follow-up through email and telephone communications as necessary. The information is summarized in this report.

## **Use of Non-Consequential Load Loss**

In response to its 2017 survey, NERC received information on use of planned Non-Consequential Load Loss in accordance with TPL-001-4 Table 1, footnote 12 from approximately 200 United States registered entities identified by NERC Compliance Registry number (approximately 75% of all U.S.-based Transmission Planners and Planning Coordinators on the NERC Compliance Registry as of January 2018).

Of the total initial survey respondents, four registered entities indicated that they had used, or planned to use, Non-Consequential Load Loss in accordance with the provisions of Reliability Standard TPL-001-4 Table 1, footnote 12 in the 2016, 2017, or 2018 planning years. As this report focuses exclusively on the implementation and use of footnote 12, NERC excluded from this evaluation entities that indicated that they planned to use Non-Consequential Load Loss as permitted by Table 1 (see, e.g., for Planning Event P7) or in accordance with the 84 calendar month provision in Section A.5.

As of March 2018, NERC has not received any requests for a determination of whether there are any Adverse Reliability Impacts caused by the request to utilize footnote 12 for Non-Consequential Load Loss under the provisions of TPL-001-4 Attachment 1, Section 3.<sup>5</sup>

#### Entity Survey regarding Use of Non-Consequential Load Loss under TPL-001-4 Table 1, Footnote 12

A summary of the responses provided by each registered entity that has indicated that it has used, or plans to use, Non-Consequential Load Loss in accordance with the provisions of Reliability Standard TPL-001-4 Table 1, footnote 12 is provided below.

#### **MRO Entity 1**

An entity in the Midwest Reliability Organization Region ("MRO Entity 1") reported that it intended to use Non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with TPL-001-4 Table 1, footnote 12 for the 2018 Planning Assessment.

MRO Entity 1 reported that, at this stage, it planned for a load loss of approximately 56 MW in that would effectively amount to a Category P3 contingency (UVLS operation on a 115 kV line with nearby generation offline). The type of load affected would consist of large rural residential and agricultural load. The MRO Entity estimated the event to be once every 11 to 12 years, based on historical performance, and the expected duration to be 30 minutes or less for residential and commercial customers. As an alternative to the planned Non-Consequential Load Loss, MRO Entity 1 considered building a second 115 kV line at a cost of approximately \$20 million.

MRO Entity 1 reported that it had not yet begun the stakeholder and ERO review process set forth in TPL-001-4 Attachment 1, but it intended to initiate the stakeholder review process through its Independent System Operator later in 2018.

#### MRO Entity 2

A second entity in the MRO region ("MRO Entity 2") reported plans to use Non-Consequential Load Loss under TPL-001-4 footnote 12 during planning years 2016, 2017, and 2018. MRO Entity 2 placed an undervoltage load shedding (UVLS) scheme in service prior to the implementation of version 4 of TPL-001. The entity held stakeholder planning meetings to share information on the scheme and since its installation, no material changes have occurred. However,

<sup>&</sup>lt;sup>5</sup> This section requires entities planning for Non-Consequential Load Loss meeting certain criteria to first ensure that the applicable regulatory authorities or governing bodies responsible for retail electric service do not object to the use of Non-Consequential Load Loss under footnote 12, and to then seek a determination from the ERO of whether there are any Adverse Reliability Impacts caused by the request to use footnote 12 for Non-Consequential Load Loss.

MRO Entity 2 continues to provide updates to stakeholders on the UVLS through existing annual planning assessment processes, including status of future plans to alleviate the need for the existing UVLS.

MRO Entity 2's plans to use Non-Consequential Load Loss under footnote 12 impacts 31 MW during peak conditions. The types of customers affected include primarily residential and commercial customers, with some light industrial loads. Four subtransmission and distribution service providers are affected, impacting three registered entities.

#### **SPP RE Entity**

A cooperative entity in the Southwest Power Pool Regional Entity Region ("SPP RE Entity") reported that it intended to use Non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with TPL-001-4 Table 1, footnote 12 for the 2016, 2017, and 2018 Planning Assessments.

The SPP RE Entity reported that it planned for a load loss of less than 25 MW and involving two areas on the entity's system. One area experiences low voltage conditions that merit Non-Consequential Load Loss for a near-term summer peak loading conditions for multiple contingency simulations. Another area experiences near-term voltage violations in a high loading condition in all categories. Both areas have temporary operating guides along with operator actions in place while network upgrades are conducted.

The type of load affected would consist typically industrial customers, selected to have minimal impact on the health, safety, and welfare of the community. The SPP RE Entity estimated the expected duration of an outage to be from two to four hours, based on historical experience. SPP RE Entity reported that it only uses footnote 12 when other alternatives are not feasible, typically due to lead time on required network upgrades.

The SPP RE Entity reported that it notifies its affected members whenever a mitigation plan is filed that involves use of Non-Consequential Load Loss in accordance with TPL-001-4 Table 1, footnote 12 and would schedule formal meetings upon request. The SPP RE Entity has indicated that no disputes have occurred to date, although a dispute mechanism exists. SPP RE Entity coordinates with the SPP Planning Coordinator to ensure mitigation procedures will meet TPL Reliability Standards.

#### SERC Entity

An entity in the SERC Reliability Corporation region ("SERC Entity") reported that it is intending to use Non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with TPL-001-4 Table 1, footnote 12 for the first time in its upcoming Planning Assessment. The SERC Entity reported plans for a load loss of just below 25 MW through the summer of 2019 due to overloading a transmission line as a result of TPL-001-4 Table 1 contingency simulations. The voltage level of the Contingency is less than 300 kV.

The SERC Entity completed its stakeholder review process in late 2017. The type of load affected would consist of approximately 5,000 customers, including large residential and large commercial customers. Affected customers could include urgent care and assisted living facilities, as well as fire, police, and ambulance stations. Additionally, local traffic signals could be affected. No hospitals would be affected. Alternative remedies that were considered included automatically dropping load for the specific contingency at a cost of approximately \$100,000, or upgrading the affected section of the transmission line, at a cost of approximately \$6 million.

Since SERC Entity began tracking outages of this contingency in 2009, there has been one event lasting 52 seconds. If a similar event were to occur in the future, the assessed Non-Consequential Load would not be shed.

### Conclusion

The responses from NERC's 2017 surveys indicate that use of Table 1, footnote 12 is rare among U.S.-based entities. Although the data set is limited, the available responses suggest that Non-Consequential Load Loss is typically used only when alternative solutions, such as capital improvements, are in the process of being implemented or are determined to be infeasible. NERC has not identified any issues regarding implementation of the stakeholder review process described in Attachment 1 at this time, although NERC notes that entity experience with these processes to date has been limited.

As of March 2018, NERC has not received any requests for a determination of whether there are any Adverse Reliability Impacts caused by the request to utilize footnote 12 for Non-Consequential Load Loss under the provisions of TPL-001-4 Attachment 1, Section 3.

Going forward, NERC will continue to monitor the use of Non-Consequential Load Loss under Table 1, footnote 12 through its Compliance oversight activities and through the ERO review process contemplated by TPL-001-4 Attachment 1. Information on the implementation of footnote 12 may also come from other NERC activities and committees, such as the Reliability Assessment process and the Planning Committee. Such information would be used to understand the frequency and circumstances surrounding the use of footnote 12, including the efficiency and efficacy of the stakeholder and ERO review processes, and may inform future reviews of the TPL-001 Reliability Standard.

## Appendices

**Appendix A: Initial Survey** 

### **Appendix B: Follow-up Survey**

## **Appendix A: Initial Survey**

NERC NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

## NERC Survey to Transmission Planners and Planning Coordinators on the use of TPL-001-4 Footnote 12

NERC is conducting this survey in preparing a report on how entities have used Reliability Standard TPL-001-4 Table 1, footnote 12 to plan for Non-Consequential Load Loss. NERC requests all Planning Coordinators and Transmission Planners to respond to the following three question survey by **June 30**, **2017**. Responses should be sent to [NonConLoadLoss@nerc.net].

#### Background

On October 17, 2013, the Federal Energy Regulatory Commission ("Commission" or "FERC") issued **Order No. 786,** a final rule approving Reliability Standard TPL-001-4 (*Transmission System Planning Performance Requirements*), which requires Planning Coordinators and Transmission Planners to perform planning assessments. The purpose of TPL-001-4 is to "establish Transmission system planning performance requirements within the planning horizon to develop a Bulk Electric System (BES) that will operate reliably over a broad spectrum of System conditions and following a wide range of probable Contingencies."

Table 1 of TPL-001-4 contains a series of planning events and describes system performance requirements for a range of potential system contingencies the planner is required to evaluate. Footnote 12 of Table 1 provides parameters for the permissible use of planned Non-Consequential Load Loss to address BES performance issues. Attachment 1 to the Standard provides that before the use of Non-Consequential Load Loss under Table 1 footnote 12 is allowed as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon of the Planning Assessment, the Transmission Planner or Planning Coordinator shall ensure that the utilization of footnote 12 is reviewed through an open and transparent stakeholder process.

In Order No. 786, the Commission directed NERC to report on the use of TPL-001-4 Table 1, footnote 12. In accordance with that directive, NERC is preparing a report on how entities have used TPL-001-4 footnote 12 to plan for Non-Consequential Load Loss. To inform NERC's report, please answer the following survey:

#### Survey on the use of TPL-001-4 FN 12

Please provide your entity's information below:

Entity Name: NCR: Region(s) where registered: Survey Completed by/Contact Info:

Registration: OPlann	ing Coordinator 🗸	Transmission Planner

3353 Peachtree Road NE Suite 600, North Tower Atlanta, GA 30326 404-446-2560 | www.nerc.com



Please respond to the following three questions by June 30, 2017:

1. Did your entity use non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in its annual Planning Assessment for 2016?



2. Did your entity use (or is your entity planning to use) non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in its annual Planning Assessment for 2017?

Yes No Unknown / To Be Determined (Provide Explanation Below)

3. Does your entity plan to utilize non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in its next annual Planning Assessment? Yes

No Unknown / To Be Determined (Provide Explanation Below)

If you answered YES to any of the questions above, NERC will send out a follow-up survey asking for additional information on your entity's use of footnote 12, including your experience with stakeholder and local regulatory review processes. Please indicate who NERC should contact with this follow up survey:

Name: Address: Title/Department: Email: Phone:

Thank you for your participation. Please direct any questions regarding this survey to [Ganesh.Velummylum@nerc.net].

## **Appendix B: Follow-up Survey**

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

#### NERC Follow-up Survey to Transmission Planners and Planning Coordinators on the use of TPL-001-4 Footnote 12

NERC is sending this <u>follow-up survey</u> to Planning Coordinators and Transmission Planners who have previously responded that they have used, or plan to use, non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in accordance with Reliability Standard TPL-001-4 Table 1, footnote 12. NERC requests that receiving entities respond to this survey by **November 17, 2017**. Responses should be sent to [NonConLoadLoss@nerc.net].

#### Background

On October 17, 2013, the Federal Energy Regulatory Commission ("Commission" or "FERC") issued **Order No. 786,** a final rule approving Reliability Standard TPL-001-4 (*Transmission System Planning Performance Requirements*), which requires Planning Coordinators and Transmission Planners to perform planning assessments. The purpose of TPL-001-4 is to "establish Transmission system planning performance requirements within the planning horizon to develop a Bulk Electric System (BES) that will operate reliably over a broad spectrum of System conditions and following a wide range of probable Contingencies."

Table 1 of TPL-001-4 contains a series of planning events and describes system performance requirements for a range of potential system contingencies the planner is required to evaluate. Footnote 12 of Table 1 provides parameters for the permissible use of planned Non-Consequential Load Loss to address BES performance issues. Attachment 1 to the Standard provides that before the use of Non-Consequential Load Loss under Table 1 footnote 12 is allowed as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon of the Planning Assessment, the Transmission Planner or Planning Coordinator shall ensure that the utilization of footnote 12 is reviewed through an open and transparent stakeholder process.

In Order No. 786, the Commission directed NERC to report on the use of TPL-001-4 Table 1, footnote 12. In accordance with that directive, NERC is preparing a report on how entities have used TPL-001-4 footnote 12 to plan for Non-Consequential Load Loss. NERC previously issued a three-question survey intended to identify those entities that have used, or planned to use, non-Consequential Load Loss. This survey is directed to those entities that have responded in the affirmative to any of the questions on that survey.

3353 Peachtree Road NE Suite 600, North Tower Atlanta, GA 30326 404-446-2560 | www.nerc.com

#### **RELIABILITY** | ACCOUNTABILITY



#### Survey on the use of TPL-001-4 FN 12

Please provide your entity's information below:

Entity Name:	
NCR:	
Region(s) whe	ere registered:
Registration:	Planning Coordinator Transmission Planner

Survey Completed by:
Name:
Address:
Title/Department:
Email:
Phone:

Identify the annual Planning Assessment years for which your entity used, or plans to use, non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon in its annual Planning Assessment (*check all that apply*):

2016
2017
2018

Please answer the following questions for <u>each</u> of the annual Planning Assessments in which your entity used, or is planning to use, non-Consequential Load Loss as an element of a Corrective Action Plan in the Near-Term Transmission Planning Horizon.

Annual Planning Assessment for Year:

#### Question 1: TPL-001-4 Attachment 1: Stakeholder Process

Reliability Standard TPL-001-4 Attachment 1 Section I provides that the Transmission Planner or Planning Coordinator planning to use non-Consequential Load Loss under footnote 12 shall ensure that the utilization is reviewed through an open and transparent stakeholder process. Section I also provides that an entity does not have to repeat the stakeholder process unless conditions have materially changed for a subsequent application.

1A: Is this instance the first time the entity has used or planned to use non-Consequential Load Loss under Reliability Standard TPL-001-4 footnote 12?



1B: Did the entity ensure review, or is it in the process of ensuring review, of its planned use of footnote 12 under an open and transparent stakeholder process?

Yes No/Explain

1C: Describe or provide a copy of the stakeholder process used to review use of footnote 12 and describe how the following five process requirements were met, or are being met, for this specific application:

- 1. Meetings must be open to affected stakeholders including applicable regulatory authorities or governing bodies responsible for retail electric service issues
- 2. Notice must be provided in advance of meetings to affected stakeholders including applicable regulatory authorities or governing bodies responsible for retail electric service issues and include an agenda with:
  - a. Date, time, and location for the meeting
  - b. Specific location(s) of the planned Non-Consequential Load Loss under footnote 12
  - c. Provisions for a stakeholder comment period
- Information regarding the intended purpose and scope of the proposed Non-Consequential Load Loss under footnote 12 (as shown in Section II below) must be made available to meeting participants



- 4. A procedure for stakeholders to submit written questions or concerns and to receive written responses to the submitted questions and concerns
- 5. A dispute resolution process for any question or concern raised in #4 above that is not resolved to the stakeholder's satisfaction

1C: Did the result of the stakeholder process result in any changes to your entity's planned use of non-Consequential Load Loss? Please describe.

#### Question 2: TPL-001-4 Attachment 1: Required Information

Reliability Standard TPL-001-4 Attachment 1 Section II requires the entity to make available certain documented information for the planned use of Non-Consequential Load Loss under footnote 12.

2A: For this specific application of planned non-Consequential Load Loss, describe, or provide copies of documentation provided to stakeholders that describe, the following:

- 1. Conditions under which Non-Consequential Load Loss under footnote 12 would be necessary:
  - a. System Load level and estimated annual hours of exposure at or above that Load level
  - b. Applicable Contingencies and the Facilities outside their applicable rating due to that Contingency
- 2. Amount of Non-Consequential Load Loss with:
  - a. The estimated number and type of customers affected



- b. An explanation of the effect of the use of Non-Consequential Load Loss under footnote 12 on the health, safety, and welfare of the community
- 3. Estimated frequency of Non-Consequential Load Loss under footnote 12 based on historical performance
- 4. Expected duration of Non-Consequential Load Loss under footnote 12 based on historical performance
- 5. Future plans to alleviate the need for Non-Consequential Load Loss under footnote 12
- 6. Verification that TPL Reliability Standards performance requirements will be met following the application of footnote 12
- 7. Alternatives to Non-Consequential Load Loss considered and the rationale for not selecting those alternatives under footnote 12
- 8. Assessment of potential overlapping uses of footnote 12 including overlaps with adjacent Transmission Planners and Planning Coordinators

## Question 3: TPL-001-4 Attachment 1: Instances for which Regulatory Review of Non-Consequential Load Loss under Footnote 12 is Required

Reliability Standard TPL-001-4 Attachment 1 Section III provides that, in certain circumstances, Transmission Planners and Planning Coordinators must ensure that applicable regulatory authorities or governing bodies responsible for retail electric service issues do not object to the use of Non-Consequential Load Loss under footnote 12. Provided there is no objection, documentation is to be submitted to the ERO for a determination of whether there are any Adverse Reliability Impacts. 3A: In this specific application, did the planned load loss meet either or both of the following two circumstances:

The voltage level of the Contingency is greater than 300 kV?

Yes, Specify voltage level: No

The planned non-Consequential Load Loss under footnote 12 is greater than or equal to 25 MW?

Yes, specify amount:

3B. How did your entity ensure that the applicable regulatory authority or governing body responsible for retail electric service did not object to the use of Non-Consequential Loss under footnote 12?

3C. Describe your entity's experience with the local regulatory review process, including the time from initiation to completion. If the local regulator did object to the use of Non-Consequential Load Loss, or has not yet reached an opinion, please describe the circumstances and whether any changes were made to address that body's concerns.

3D. Has your entity submitted information to the ERO, or does it plan to submit information to the ERO, for a determination of whether there are any Adverse Reliability Impacts caused by the request to use footnote 12 for non-Consequential Load Loss?

Yes/submitted on DATE Yes/plan to submit on approximately DATE No

#### Additional Questions

If not addressed in response to the questions above:

4A: for which time period in the Near-Term Transmission Planning Horizon is the planned non-Consequential Load Loss being used?

4B: Is the use of footnote 12 caused by the addition or retirement of a system element, or does it reflect existing system topology?



5. Do you have any other comments that you wish to share with NERC regarding your entity's experience planning for non-Consequential Load Loss under footnote 12?

Thank you for your participation. Please direct any questions regarding this survey to [NonConLoadLoss@nerc.net].