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Prerequisite Approvals and Activities

There are no other Reliability Standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this set of Coordinate Interchange standards can be implemented.

Before the proposed standards can be implemented, entities must register to be recognized as the 'Interchange Authority'. The implementation date for each of the proposed standards provides eight months for this registration process.

As part of this implementation plan, the drafting team is recommending that some Version 0 Interchange Requirements be retired. Some of these requirements should be retired because they will be displaced with Version 1 Interchange requirements – but some of the Version 0 Interchange Requirements should be retired because they are being replaced by NAESB Coordinate Interchange Business Practices. The Version 0 NAESB Coordinate Interchange Business Practice has already been approved and filed with FERC. The drafting team expects that the Standards Authorization Committee or Joint Interface Committee will coordinate retirement of the Version 0 Coordinate Interchange Standards with the associated NAESB Business Practices.

Recommended Modifications to Version 0 Standards

The following table shows the Coordinate Interchange Drafting Team’s recommendations for modifying the Version 0 Interchange Standards – INT-001, INT-002, INT-003 and INT-004.

- Keep – the requirement may need to be renumbered, but there are no text changes
- Retire – the requirement is no longer needed to support reliability
- Revise – the requirement is still needed, but needs some minor revisions to make the requirement align with the proposed Version 1 Interchange standards
- Replace – the requirement is being replaced either by the NAESB Coordinate Interchange Business Practice or by one or more requirements in one of the Version 1 Coordinate Interchange standards.

Justification for these recommendations is provided in the tables on the following pages.

Recommended Changes for Version 0 Interchange Standards:					
Standard	Requirement	Keep	Retire	Revise	Replace With:
INT-001	R1			X	
	R1.1				NAESB Business Practice
	R1.2		X		Not needed
	R1.3	X			
	R2			X	
	R2.1	X			
	R2.2				INT-010 R1
	R2.3	X			
	R3				NAESB Business Practice
	R4				NAESB Business Practice
	R5				NAESB Business Practice
INT-002	R1		X		
	R1.1				INT-005 R1 and INT-008 R1
	R1.2				INT-005 R1 and INT-008 R1
	R1.3				INT-005 R1 and INT-008 R1
	R1.4				INT-008 R1.1.2
	R1.5				INT-005 R1 and INT-008 R1.1.2
	R2				INT-006 R1.2 and INT-007 R1
	R2.1				INT-006 R1.2 and INT-007 R1
	R2.2				INT-006 R1.2 and INT-007 R1
R2.3				INT-006 R1.2 and INT-007 R1	

Implementation Plan for Coordinate Interchange Standards INT-005 through INT-010

Standard	Requirement	Keep	Retire	Revise	Replace With:
INT-002	R2.4				INT-006 R1.2 and INT-007 R1
	R2.5				INT-006 R1.2 and INT-007 R1
	R2.6				INT-006 R1.2 and INT-007 R1
	R3				INT-006 R1 and INT-007 R1
	R3.1				INT-006 R1 and INT-007 R1
	R3.2				INT-006 R1 and INT-007 R1
	R3.3				INT-006 R1 and INT-007 R1
	R3.4				INT-006 R1 and INT-007 R1
	R4				INT-006 R1
	R5				INT-008 R1
INT-003	R1	X			
	R1.1	X			
	R1.1.1	X			
	R1.1.2	X			
	R1.1.3				NAESB Business Practice
	R1.2	X			
	R1.3				INT-009 R1
	R2				INT-009 R1
	R3				INT-009 R1
	R4				INT-009 R1
	R5			X	
	R6				INT-006 R1.2
	R6.1				INT-006 R1.2
	R6.2				INT-006 R1.2
INT-004	R1				INT-010 R2, R3
	R1.1				INT-010 R2, R3
	R1.2				INT-010 R2, R3
	R1.3				INT-010 R2, R3
	R1.4				INT-010 R2, R3
	R1.5				INT-010 R2, R3
	R2				INT-005 R1, INT-006 R1, INT-007 R1, INT-008 R1, INT-009 R1
	R2.1				INT-005 R1, INT-006 R1, INT-007 R1, INT-008 R1, INT-009 R1

Implementation Plan for Coordinate Interchange Standards INT-005 through INT-010

Standard	Requirement	Keep	Retire	Revise	Replace With:
INT-004	R2.2				INT-005 R1, INT-006 R1, INT-007 R1, INT-008 R1, INT-009 R1
	R3				INT-010 R2
	R4	X			
	R5	X			
	R5.1	X			
	R5.2	X			
	R5.3	X			

Version 0 Requirements	Recommendation	Reason
<p>INT-001</p> <p>R1. The Load-serving Purchasing-Selling Entity shall be responsible for ensuring Tags are submitted for: Transaction information is submitted to the NERC-identified reliability analysis service for:</p> <p>R1.1.—All Interchange Transactions that are between Balancing Authority Areas</p> <p>R1.2 All transfers that are entirely within a Balancing Authority Area using Point to-Point Transmission Service (including all grandfathered and “non-Order 888” Point-to-Point Transmission Service).</p> <p>R1.3 R1.1 All Dynamic Schedules at the expected average MW profile for each hour.</p>	<p>Revise INT-001 R1 as shown.</p> <p>Replace R1.1 with the NASEB CI BP.</p> <p>Delete R1.2.</p> <p>Renumber R1.3 as R1.1.</p>	<p>The Version 1 Coordinate Interchange Standards avoid the use of the word, ‘Tag’ to allow different tools and methods in the future without the need to revise the standard.</p> <p>INT-001 R1.1 is a Business Practice</p> <p>INT-001 R1.2 addresses transactions within a BA Area. The information that is entered is not used by the IDC so providing it is not necessary.</p> <p>INT-001 R1.3 addresses Dynamic Schedules and these are not addressed in Version 1 Coordinate Interchange Standards.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-001</p> <p>R2. The Sink Balancing Authority shall be responsible for ensuring a Tag that Arranged Interchange is provided submitted to the Interchange Authority:</p> <p>R2.1. If a Purchasing-Selling Entity is not involved in the Transaction Interchange, such as delivery from a jointly owned generator.</p> <p>R2.2. To replace unexpected generation loss, such as through prearranged reserve sharing agreements or other arrangements. If the duration of the Emergency Transaction to replace the generation loss is less than 60 minutes, then the Transaction shall be exempt from Tagging.</p> <p>R2.3. R2.2 For each All bilateral inadvertent interchange payback.</p>	<p>Revise R2 as shown.</p> <p>Keep R2.1.</p> <p>Replace R2.2 with INT-010 R1.</p> <p>Keep R2.3 but renumber as R2.2.</p>	<p>The Version 1 Coordinate Interchange Standards avoid the use of the word, ‘Tag’ to allow different tools and methods in the future without the need to revise the standard.</p> <p>INT-010: R1. The Balancing Authority that experiences a loss of resources covered by an energy sharing agreement, shall ensure that a request for an Arranged Interchange is submitted with a start time no more than 60 minutes beyond the resource loss. If the use of the energy sharing agreement does not exceed 60 minutes from the time of the resource loss, no request for Arranged Interchange is required.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-001</p> <p>R3. The Purchasing Selling Entity responsible for submitting the Tag shall submit all Tags to the Sink Balancing Authority according to timing tables in Attachment 1 INT-001-0.</p> <p>R4. The Balancing Authority or Purchasing Selling Entity responsible for submitting the Tag shall include the reliability data listed in Attachment 2 INT-001-0 in the Tag.</p> <p>R5. Each Purchasing Selling Entity with title to an Interchange Transaction shall have, or shall arrange to have, personnel directly and immediately available for notification of Interchange Transaction changes. These personnel shall be available from the time that the title to the Interchange Transaction is acquired until the Interchange Transaction has been completed.</p>	<p>Replace with NAESB CI BP</p> <p>Replace with NAESB CI BP</p> <p>Replace with NAESB CI BP</p>	<p>INT-001 R3 is a Business Practice requirement.</p> <p>INT-001 R4 is a Business Practice requirement.</p> <p>INT-001 R5 is a Business Practice requirement.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-002</p> <p>R1.— The Sink Balancing Authority shall ensure that all Tags and any modifications to Tags are provided via a secure network to the following entities on the Scheduling Path:</p> <p>R1.1.— Sink and Source Balancing Authority for the Transaction.</p> <p>R1.2.— Intermediate Balancing Authorities on the Schedule Path.</p> <p>R1.3.— Transmission Service Provider(s) on the Schedule Path.</p> <p>R1.4.— Reliability analysis services (IDC or other regional reliability tools).</p> <p>R1.5.— Transmission Operators and Reliability Coordinators who may receive the information through Reliability analysis services.</p>	<p>Retire INT-002 R1.</p> <p>Replace INT-002 R1.1 with INT-005 R1 and INT-008 R1.</p> <p>Replace INT-002 R1.2 with INT-005 R1 and INT-008 R1.</p> <p>Replace INT-002 R1.3 with INT-005 R1 and INT-008 R1.</p> <p>Replace INT-002 R1.4 with INT-008 R1.1.2.</p> <p>Replace INT-002 R1.5 with INT-005 R1 and INT-008 R1.1.2.</p>	<p>INT-002 R1 - Currently this activity takes place via public internet and the term, ‘secure’ has no accepted definition or measures. NAESB’s proposed tagging Business Practice requires use of a secure network protocol.</p> <p>INT-005 and INT-008 require that the entities that need the data for reliability reasons receive that data. Note that current practice doesn’t match INT-002 R1.5– this information is not distributed to RAS before approval.</p> <p>INT-005 R1. Prior to the expiration of the time period defined in the Timing Table, Column A, the Interchange Authority shall distribute to all reliability entities involved in the Interchange the Arranged Interchange information for reliability assessment.</p> <p>INT-008 R1. Prior to the expiration of the time period defined in the Timing Table, Column C, the Interchange Authority shall distribute to all Balancing Authorities (including Balancing Authorities on both sides of a direct current tie), Transmission Service Providers and Purchasing-Selling Entities involved in the Arranged Interchange whether or not the Arranged Interchange has transitioned to a Confirmed Interchange.</p> <p>R1.1. For Confirmed Interchange, the Interchange Authority shall also communicate:</p> <p>R1.1.1. Start and stop times, ramps, and megawatt profile to Balancing Authorities.</p> <p>R1.1.2. Necessary Interchange information to NERC-identified reliability analysis services.</p>

Implementation Plan for Coordinate Interchange Standards INT-005 through INT-010

Version 0 Requirements	Recommendation	Reason
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<p>INT-002</p> <p>R2. Transmission Service Providers on the Scheduling Path shall be responsible for assessing and approving or denying the Interchange Transaction based on established reliability criteria and adequacy of Interconnected Operating Services and transmission rights as well as the reasonableness of the Interchange Transaction Tag. The Transmission Service Provider shall verify and assess:</p> <p>R2.1. Valid OASIS reservation number or transmission contract identifier.</p> <p>R2.2. Transmission priority matches reservation.</p> <p>R2.3. Energy profile fits within OASIS reservation.</p> <p>R2.4. OASIS reservation accommodates all Interchange Transactions.</p> <p>R2.5. Connectivity of adjacent Transmission Service Providers.</p> <p>R2.6. Loss accounting.</p>	<p>Replace INT-002 R2 with INT-006 R1 and INT-007 R1.</p>	<p>INT-006</p> <p>R1. Prior to the expiration of the reliability assessment period defined in the Timing Table, Column B, the Balancing Authority and Transmission Service Provider shall respond to a request from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange.</p> <ul style="list-style-type: none"> R1.1. Each involved Balancing Authority shall evaluate the Arranged Interchange with respect to: <ul style="list-style-type: none"> R1.1.1. Energy profile (ability to support the magnitude of the transaction). R1.1.2. Ramp (ability of generation maneuverability to accommodate). R1.1.3. Scheduling path (proper connectivity of Adjacent Balancing Authorities). R1.2. Each involved Transmission Service Provider shall confirm that the transmission service arrangements associated with the Arranged Interchange have adjacent Transmission Service Provider connectivity, are valid and prevailing transmission system limits will not be violated. <p>INT-007</p> <p>R1. The Interchange Authority shall verify that Arranged Interchange is balanced and valid prior to transitioning Arranged Interchange to Confirmed Interchange by verifying the following:</p> <ul style="list-style-type: none"> R1.1. Source Balancing Authority megawatts equal sink Balancing Authority megawatts (adjusted for losses, if appropriate). R1.2. All reliability entities involved in the Arranged Interchange are currently in the NERC registry. R1.3. The following are defined: <ul style="list-style-type: none"> R1.3.1. Generation source and load sink. R1.3.2. Megawatt profile. R1.3.3. Ramp start and stop times. R1.3.4. Interchange duration. R1.4. Each BA, and TSP that received the Arranged Interchange information from the IA for reliability assessment has provided approval.
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Implementation Plan for Coordinate Interchange Standards INT-005 through INT-010

Version 0 Requirements	Recommendation	Reason
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Version 0 Requirements	Recommendation	Reason
<p>INT-002</p> <p>R5. Upon receipt of approvals or denials from all of the individual Balancing Authorities and Transmission Service Providers, the Sink Balancing Authority shall communicate the composite approval status of the Interchange Transaction to the Purchasing-Selling Entity and all other Balancing Authorities and Transmission Service Providers on the Scheduling Path and through the Reliability analysis service to affected Transmission Operators and Reliability Coordinators.</p>	<p>Replace INT-002 R4 with INT-008 R1.</p>	<p>INT-008</p> <p>R1. Prior to the expiration of the time period defined in the Timing Table, Column C, the Interchange Authority shall distribute to all Balancing Authorities (including Balancing Authorities on both sides of a direct current tie), Transmission Service Providers and Purchasing-Selling Entities involved in the Arranged Interchange whether or not the Arranged Interchange has transitioned to a Confirmed Interchange.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-003</p> <p>R1.2 If a high voltage direct current (HVDC) tie is on the Scheduling Path, then the Sending Balancing Authorities and Receiving Balancing Authorities shall coordinate the Interchange Schedule with the Transmission Operator of the HVDC tie.</p> <p>R1.3 Balancing Authorities that implement Interchange Schedules that cross an Interconnection boundary shall use the same start time and Ramp durations.</p> <p>R2. Balancing Authorities shall implement Interchange Schedules only with Adjacent Balancing Authorities.</p> <p>R3. Balancing Authorities shall begin and end Interchange Schedules at a time agreed to by the Source Balancing Authority, Sink Balancing Authority, and Intermediate Balancing Authorities.</p> <p>R4. The Sink Balancing Authority shall be responsible for initiating implementation of each Interchange Transaction as tagged. Upon receiving composite approval from the Sink Balancing Authority, each Balancing Authority on the scheduling path shall enter confirmed Schedules into its Automatic Generation Control ACE equation.</p>	<p>Leave INT-003 R1.2.</p> <p>Replace INT-003 R1.3 with INT-009 R1.</p> <p>Replace INT-003 R2 with INT-009 R1.</p> <p>Replace INT-003 R3 with INT-009 R1.</p> <p>Replace INT-003 R4 with INT-009 R1.</p>	<p>INT-009:</p> <p>R1. The Balancing Authority shall implement Confirmed Interchange as received from the Interchange Authority.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-003</p> <p>R5. Balancing Authorities shall operate such that Interchange Schedules do not knowingly cause any other systems to violate established operating criteria.</p> <p>R6. Balancing Authorities shall operate such that the maximum Net Interchange Schedule between any two Balancing Authorities does not exceed the lesser of:</p> <p>R6.1.—The total capacity of both the owned and arranged for transmission facilities in service for any Transmission Service Provider along the path, or</p> <p>R6.2.—The established network Total Transfer Capability between Balancing Authorities, which considers other transmission facilities available to them under specific arrangements, and the overall physical constraints of the transmission network.</p>	<p>Retire INT-003 R5.</p> <p>Replace INT-003 R6 with INT-006 R1.2</p>	<p>The BA may not have transmission data – and may not be able to meet this requirement. The need to operate within limits is addressed in several other standards.</p> <p>INT-006:</p> <p>R1. Prior to the expiration of the reliability assessment period defined in the Timing Table, Column B, the Balancing Authority and Transmission Service Provider shall respond to a request from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange.</p> <p>R1.2. Each involved Transmission Service Provider shall confirm that the transmission service arrangements associated with the Arranged Interchange have adjacent Transmission Service Provider connectivity, are valid and prevailing transmission system limits will not be violated.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-004</p> <p>R1. If a Reliability Coordinator, Transmission Operator, or Source or Sink Balancing Authority, due to a reliability event, needs to modify an Interchange Transaction that is in progress or scheduled to be started, the entity shall, within 60 minutes of the start of the emergency Transaction, modify the Interchange Transaction tag, and shall communicate the modification to the Sink Balancing Authority. Reliability events may include:</p> <p>R1.1. Transmission Loading Relief procedure curtailment — Eastern Interconnection.</p> <p>R1.2. Interconnection, regional, or local overload relief or congestion management procedures.</p> <p>R1.3. SOL or IROL potential or actual limit violation.</p> <p>R1.4. Loss of generation.</p> <p>R1.5. Loss of Load.</p>	<p>Replace all of INT-004 R1 with INT-010 R1, R2 and R3.</p>	<p>INT-010</p> <p>R1. The Balancing Authority that experiences a loss of resources covered by an energy sharing agreement, shall ensure that a request for an Arranged Interchange is submitted with a start time no more than 60 minutes beyond the resource loss. If the use of the energy sharing agreement does not exceed 60 minutes from the time of the resource loss, no request for Arranged Interchange is required.</p> <p>R2. For a modification to an existing Interchange schedule that is directed by a Reliability Coordinator for current or imminent reliability-related reasons, the Reliability Coordinator shall direct a Balancing Authority to submit the modified Arranged Interchange reflecting that modification within 60 minutes of the initiation of the event.</p> <p>R3. For a new Interchange schedule that is directed by a Reliability Coordinator for current or imminent reliability-related reasons, the Reliability Coordinator shall direct a Balancing Authority to submit an Arranged Interchange reflecting that Interchange schedule within 60 minutes of the initiation of the event.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-004</p> <p>R2. A Generator Operator or Load Serving Entity may request the Host Balancing Authority to modify an Interchange Transaction due to loss of generation or Load.</p> <p>R2.1 When a loss of generation necessitates curtailing Interchange Transactions, the Source Balancing Authority shall coordinate the modifications to the appropriate tags.</p> <p>R2.2 When a loss of Load necessitates curtailing Interchange Transactions, the Sink Balancing Authority shall coordinate the modifications to the appropriate tags.</p>	<p>Replace with INT-004 R 2 with INT-005 through INT-009</p>	<p>The definition of ‘Arranged Interchange’ is: The state where the Interchange Authority has received the Interchange information (initial or revised).</p> <p>When there is a revision to an Arranged Interchange, and the change is not considered an ‘emergency’ then the change is treated the same way as a ‘new’ Arranged Interchange and is submitted to the IA.</p> <ul style="list-style-type: none"> – INT-005 R1 requires that the IA distribute all reliability –related information from the Arranged Interchange to all reliability entities involved in the Interchange – INT-006 R1 requires the BA and TSP to review the Arranged Interchange information from a reliability-related perspective and let the IA know if the Arranged Interchange should proceed. – INT-007 R1 requires the IA to verify that the Arranged Interchange is balanced and valid before transitioning the Arranged Interchange to ‘Confirmed Interchange’. – INT-008 R1 requires the IA to notify entities of the status of the Arranged Interchange and to relay any information needed for reliability – INT-009 R1 requires the BA to implement the Confirmed Interchange as received from the IA

Version 0 Requirements	Recommendation	Reason
<p>INT-004</p> <p>R3. Upon receipt of modification to an Interchange Transaction as described in Requirement R1, the Sink Balancing Authority (Source Balancing Authority in the case of a loss of generation) shall communicate the modified information about the Interchange Transaction, including its composite approval status, to all Balancing Authorities and Transmission Service Providers on the Transaction path and the Purchasing-Selling Entity responsible for the Transaction.</p> <p>R4. At such time as the reliability event allows for the reloading of the transaction, the entity that initiated the curtailment shall release the limit on the Interchange Transaction tag to allow reloading the transaction and shall communicate the release of the limit to the Sink Balancing Authority.</p>	<p>Replace with INT-010 R2.</p>	<p>INT-010:</p> <p>R2. For a modification to an existing Interchange schedule that is directed by a Reliability Coordinator for current or imminent reliability-related reasons, the Reliability Coordinator shall direct a Balancing Authority to submit the modified Arranged Interchange reflecting that modification within 60 minutes of the initiation of the event.</p>

Version 0 Requirements	Recommendation	Reason
<p>INT-004</p> <p>R5. R2. The Purchasing-Selling Entity responsible for tagging a Dynamic Interchange Schedule shall ensure the tag is updated for the next available scheduling hour and future hours when any one of the following occur:</p> <p>R52.1. The average energy profile in an hour is greater than 250 MW and in that hour the actual hourly integrated energy deviates from the hourly average energy profile indicated on the tag by more than +10%.</p> <p>R52.2. The average energy profile in an hour is less than or equal to 250 MW and in that hour the actual hourly integrated energy deviates from the hourly average energy profile indicated on the tag by more than +25 megawatt-hours.</p> <p>R52.3. A Reliability Coordinator or Transmission Operator determines the deviation, regardless of magnitude, to be a reliability concern and notifies the Purchasing-Selling Entity of that determination and the reasons.</p>	<p>Leave INT-004 R5 but renumber as R2.</p>	<p>Need to determine whether this should be addressed by NERC or NAESB.</p>

Functions That Must Comply with the Proposed Standards

Standard	Functions That Must Comply With the Requirements
INT-005 — Interchange Authority Distributes Arranged Interchange	Interchange Authority
INT-006 — Response to Interchange Authority	Balancing Authority Transmission Service Provider
INT-007 — Interchange Confirmation	Interchange Authority
INT-008 — Interchange Authority Distributes Confirmation	Interchange Authority
INT-009 – Implementation of Interchange	Balancing Authority
INT-010 — Interchange Coordination Exemptions	Balancing Authority Reliability Coordinator

Compliance with Proposed Standards

For all the requirements in this set of proposed Coordinate Interchange Standards, entities are already expected to be fully compliant and no additional time should be needed to meet that compliance. Additional time is needed to update the Tagging so that it complies with the proposed requirements, and time for entities to register to perform the Interchange Authority function. The proposed implementation date of January 1, 2007 will provide eight months for these activities.