

## **Standard Development Timeline**

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*This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.*

### **Development Steps Completed**

1. SAR posted for comment (July 2, 2008 through July 31, 2008).
2. Revised SAR and response to comments posted (December 1, 2008).
3. SC authorized moving the SAR forward to standard development (December 16–17, 2008).
4. SDT appointed (February 12, 2009).
5. First draft of proposed standard posted (November 10, 2009).
6. Project became inactive until February, 2013.

### **Description of Current Draft**

This is the second draft of the proposed standard posted for stakeholder comments and an initial ballot. This draft includes the modifications based on comments submitted by stakeholders, as well as items identified in the SAR and applicable FERC directives from FERC Order 693.

| <b>Anticipated Actions</b>                                | <b>Anticipated Date</b> |
|---|-------------------------|
| 45-day Formal Comment Period with Parallel Initial Ballot | July 2013               |
| Recirculation ballot                                      | October 2013            |
| BOT adoption  | November 2013           |
| File standard with regulatory authorities.                | December 2013           |

### Effective Dates

First day of the second calendar quarter beyond the date this standard is approved by applicable regulatory authorities, or in those jurisdictions where regulatory approval is not required, the standard becomes effective on the first day of the second calendar quarter beyond the date this standard is approved by the NERC Board of Trustees, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

### Version History

| Version | Date             | Action                                | Change Tracking |
|---------|------------------|---------------------------------------|-----------------|
| 1.0     | May 2, 2006      | Adopted by the NERC Board Of Trustees | New             |
| 2.0     | May 2, 2007      | Adopted by the NERC Board Of Trustees | Revised         |
| 3.0     | October 29, 2008 | Adopted by the NERC Board Of Trustees | Revised         |
| 3.0     | July 1, 2010     | Approved by FERC                      | Revised         |
| 4.0     | TBD              | Adopted by the NERC Board Of Trustees | Revised         |

### Definitions of Terms Used in Standard

*This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.*

#### *Proposed Revised Definitions:*

**Arranged Interchange** - The state where the Sink Balancing Authority has received the Interchange information or intra-Balancing Authority transfer information (initial or revised).

**Confirmed Interchange** - The state where the Sink Balancing Authority has verified the Arranged Interchange.

**Adjacent Balancing Authority** - A Balancing Authority Area that is interconnected with another Balancing Authority Area either directly or via a multi-party agreement or transmission tariff.

**Intermediate Balancing Authority** - A Balancing Authority involved in an Interchange Transaction other than the Source Balancing Authority and Sink Balancing Authority.

**Sink Balancing Authority** - The Balancing Authority in which the load (sink) is located for an Interchange Transaction and the resulting Interchange Schedule.

**Source Balancing Authority** - The Balancing Authority in which the generation (source) is located for an Interchange Transaction and for the resulting Interchange Schedule.

#### *Proposed New Definition:*

**Reliability Adjustment Arranged Interchange** - Request to modify a Confirmed Interchange or Implemented Interchange for reliability purposes.

*When this standard has received ballot approval, the text boxes will be moved to the Application Guidelines Section of the Standard.*

### A. Introduction

1. **Title:** Evaluation of Interchange Transactions
2. **Number:** INT-006-4
3. **Purpose:** To ensure that entities conduct a reliability assessment of each Arranged Interchange before it is implemented.
4. **Applicability:**
  - 4.1. Balancing Authority
  - 4.2. Transmission Service Provider
5. **Background:**

This standard was revised as part of the Project 2008-12 Coordinate Interchange Standards effort to combine requirements from the various INT standards into a fewer number of standards and in a logical sequence. The focus of INT-006-4 continues to be the reliability assessment of Interchange Transactions prior to their implementation.

The content of INT-006-4 has been revised and expanded in the following manner:

- R1 was created by moving and revising R1 from INT-005-3, which has been retired as part of the project. This requirement ensures that Arranged Interchange is properly distributed to the relevant parties for reliability assessment.
- R2 was created by revising R1 from INT-006-3. This requirement ensures that Balancing Authorities involved in an Arranged Interchange actively approve or deny the transition to Confirmed Interchange. The requirement also lists criteria to determine when a Balancing Authority must deny the transition.
- R3 was created by revising R1 from INT-006-3. This requirement ensures that Transmission Service Providers involved in an Arranged Interchange actively approve or deny the transition to Confirmed Interchange. The requirement also lists criteria to determine when a Transmission Service Provider must deny the transition.
- R4 was created by revising R1 from INT-006-3. This requirement ensures that Balancing Authorities who receive a Reliability Adjustment Arranged Interchange actively approve or deny the transition to Confirmed Interchange.
- R5 was created by moving and revising R1 from INT-007-1, which has been retired as part of the project. This requirement lists criteria for when a Sink Balancing Authority shall not transition an Arranged Interchange to Confirmed Interchange.
- R6 was created by moving and revising R1 from INT-008-3, which has been retired as part of the project. This requirement lists the entities to which a Sink

Balancing Authority must distribute notifications of whether an Arranged Interchange has transitioned to Confirmed Interchange.

- Attachment 1 timing tables for WECC were modified to address scheduling on a 15 minute basis

## **B. Requirements and Measures**

**R1.** Each Sink Balancing Authority shall distribute each Arranged Interchange to the Source Balancing Authority, each Intermediate Balancing Authority, and each Transmission Service Provider included in the Arranged Interchange so that these entities can conduct a reliability assessment of the Arranged Interchange before the Arranged Interchange is implemented. When distributing Arranged Interchange, each Sink Balancing Authority shall ensure that each distribution exceeding the times specified in Attachment 1, Column A, does not result in either of the following: [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]

- 1.1.** On-time<sup>1</sup> Arranged Interchange where not all Balancing Authorities and Transmission Service Providers either approved or denied as specified in R2, R3, and R4.
- 1.2.** On-time Arranged Interchange being transitioned to Confirmed Interchange without enough time to incorporate into scheduling systems prior to ramp start as specified in Attachment 1, Column D.

**M1.** The Sink Balancing Authority shall have evidence (such as dated and time stamped electronic logs, or other evidence) that it distributed each Arranged Interchange to the listed entities and that for those distributions that exceed the times specified in Attachment 1, Column A, neither Part 1.1 or Part 1.2 occurred. (R1)

**R2.** With the exception of the provisions in R5, each Balancing Authority receiving an on-time Arranged Interchange or an emergency Arranged Interchange shall<sup>2</sup> approve or deny its transition to Confirmed Interchange prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment 1, Column B. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]

Rationale for R2: Balancing Authorities must take action on a received Arranged Interchange within a certain time frame. R2.1 and R2.2 provide reliability-related reasons that a Balancing Authority must deny an Arranged Interchange, but Balancing Authorities may deny for other reasons. If the conditions described in R2.1 or R2.2 are recognized after approval is granted, the Balancing Authority may curtail the Confirmed Interchange prior to implementation.

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<sup>1</sup> As defined in INT-006-4 Attachment 1.

<sup>2</sup> Balancing Authorities are not required to provide responses to any other requests.

- 2.1.** Each Source and Sink Balancing Authority shall deny the Arranged Interchange or curtail Confirmed Interchange if it does not expect to be capable of supporting the magnitude of the Interchange, including ramping, throughout the duration of the Arranged Interchange.
- 2.2.** Each Balancing Authority shall deny the Arranged Interchange or curtail Confirmed Interchange if the scheduling path (proper connectivity of Adjacent Balancing Authorities) between it and its Adjacent Balancing Authorities is invalid.

**M2.** Unless otherwise addressed by the provisions in Requirement R4, each Balancing Authority shall have evidence (such as dated and time stamped electronic logs, or other evidence) that it responded to each request for its approval to transition an Arranged Interchange to a Confirmed Interchange within the time defined in Attachment 1, Column B. (R2)

**R3.** Each Transmission Service Provider receiving an on-time Arranged Interchange or an emergency Arranged Interchange, shall<sup>3</sup> approve or deny its transition to Confirmed Interchange prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment 1, Column B. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]

Rationale for R3: TSPs must take action on a received Arranged Interchange within a certain time frame. R3.1 provides reliability-related reasons that a TSP must deny an Arranged Interchange, but TSPs may deny for other reasons. If the conditions described in R3.1 are recognized after approval is granted, the TSP may curtail the Confirmed Interchange prior to implementation.

**3.1.** Each Transmission Service Provider shall deny the Arranged Interchange or curtail Confirmed Interchange if the transmission path (proper connectivity of adjacent Transmission Service Providers) between it and its adjacent Transmission Service Providers is invalid.

**M3.** Each Transmission Service Provider shall have evidence (such as dated and time stamped electronic logs, studies, or other evidence) that it responded to each request for its approval to transition an Arranged Interchange to a Confirmed Interchange within the time defined in Attachment 1, Column B. If the transmission path between the Transmission Service Provider and its adjacent Transmission Service Providers is invalid, each Transmission Service Provider shall have evidence (such as dated and time stamped electronic logs, studies, or other evidence) that it denied the Arranged Interchange or curtailed confirmed Interchange. (R3)

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<sup>3</sup> Transmission Service Providers are not required to provide responses to any other requests.

- R4.** Each Balancing Authority receiving a Reliability Adjustment Arranged Interchange shall approve or deny it prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment 1, Column B. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- 4.1.** If a Balancing Authority denies a Reliability Adjustment Arranged Interchange, the Balancing Authority must communicate that fact to its Reliability Coordinator no more than 10 minutes after the denial.
- M4.** Each Balancing Authority shall have evidence (such as dated and time stamped electronic logs, studies, or other evidence) that when responding to a Reliability Adjustment Arranged Interchange, it either approved the request or denied the request or that it communicated denial to the Reliability Coordinator no more than 10 minutes after the denial. (R4)
- R5.** Each Sink Balancing Authority shall not transition an Arranged Interchange to Confirmed Interchange under any of the following conditions: [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- 5.1.** It is a Reliability Adjustment Arranged Interchange, the time period specified in Attachment 1, Column B has elapsed, and the Source Balancing Authority or the Sink Balancing Authority associated with the Arranged Interchange has not communicated its approval of the transition.
- 5.2.** It is not a Reliability Adjustment Arranged Interchange, the time period specified in Attachment 1, Column B, has elapsed, and not all Balancing Authorities and Transmission Service Providers associated with the Arranged Interchange have communicated their approval of the transition.
- 5.3.** It is not a Reliability Adjustment Arranged Interchange, the time period specified in Attachment 1, Column B, has elapsed, and any entity associated with the Arranged Interchange has communicated its denial of the transition.
- M5.** Each Sink Balancing Authority shall have evidence (such as dated and time stamped electronic logs, studies, or other evidence) that, under the conditions in R5.1, R5.2, or R5.3, it did not transition an Arranged Interchange to Confirmed Interchange. (R4)
- R6.** Each Sink Balancing Authority shall distribute all notifications of whether an Arranged Interchange was transitioned to Confirmed Interchange to the following entities, and notifications of on-time Confirmed Interchange shall be distributed such that they are delivered in time to be incorporated into scheduling systems prior to ramp start as specified in Attachment 1, Column D: [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- 6.1.** The Source Balancing Authority,

- 6.2. Each Intermediate Balancing Authority,
  - 6.3. Each Reliability Coordinator associated with each Balancing Authority included in the Arranged Interchange,
  - 6.4. Each Transmission Service Provider included in the Arranged Interchange, and
  - 6.5. Each Purchasing Selling Entity included in the Arranged Interchange.
- M6.** Each Balancing Authority shall have evidence (such as dated and time stamped electronic logs, or other evidence) that it distributed notification of whether an Arranged Interchange was transitioned to Confirmed Interchange to the listed entities, and that for an on-time Confirmed Interchange, the distribution was delivered in time to be incorporated into scheduling systems prior to ramp start as specified in Attachment 1, Column D. (R6)

## **C. Compliance**

### **1. Compliance Monitoring Process**

#### **1.1. Compliance Enforcement Authority**

Regional Entity

#### **1.2. Evidence Retention**

The Balancing Authority and Transmission Service Provider shall each keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

- The Balancing Authority shall maintain evidence to show compliance with R1, R2, R4, R5, and R6 for the most recent three calendar months plus the current month.
- The Transmission Service Provider shall maintain evidence to show compliance with R3 for the most recent three calendar months plus the current month.
- If a Balancing Authority or Transmission Service Provider is found non-compliant, it shall keep information related to the non-compliance until found compliant.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

#### **1.3. Compliance Monitoring and Assessment Processes:**

Compliance Audits

Self-Certifications

Spot Checking

Compliance Investigations

Self-Reporting

Complaint

**1.4. Additional Compliance Information**

None

Table of Compliance Elements

| R # | Time Horizon   | VRF    | Violation Severity Levels |              |   |  |
|-----|--|--------|---------------------------|--------------|---|--|
|     |  |        | Lower VSL                 | Moderate VSL | High VSL  | Severe VSL   |
| R1  | Operations Planning, Same-day Operations, Real-time Operations | Medium | N/A                       | N/A          | The Sink Balancing Authority did not distribute an Arranged Interchange to all of the entities listed in the requirement. | The Sink Balancing Authority did not distribute an Arranged Interchange to any of the entities listed in the requirement.<br><br>OR<br><br>The Sink Balancing Authority distributed an Arranged Interchange exceeding the times specified in Attachment 1 Column A that resulted in one or more of the conditions described in Requirement R1 Parts 1.1 and 1.2. |
| R2  | Operations Planning, Same-day Operations, Real-time Operations | Lower  | N/A                       | N/A          | N/A   | When not subject to the provisions in Requirement R5, the Balancing Authority receiving an on-time Arranged Interchange or an emergency Arranged Interchange did not approve or deny its transition to Confirmed Interchange prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment                       |

**Standard INT-006-4 — Evaluation of Interchange Transactions**

|    |  |       |     |     |     |  |
|----|--|-------|-----|-----|-----|--|
|    |  |       |     |     |     | <p>1, Column B.</p> <p>OR</p> <p>The Source or Sink Balancing Authority did not expect to be capable of supporting the magnitude of the Interchange, including ramping, throughout duration of the Arranged Interchange and did not deny the Arranged Interchange.</p> <p>OR</p> <p>The scheduling path between the Balancing Authority and its Adjacent Balancing Authorities was invalid, and the Balancing Authority did not deny the Arranged Interchange.</p> |
| R3 | Operations Planning, Same-day Operations, Real-time Operations | Lower | N/A | N/A | N/A | <p>The Transmission Service Provider receiving an on-time Arranged Interchange or an emergency Arranged Interchange did not approve or deny its transition to Confirmed Interchange prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment</p>  |

**Standard INT-006-4 — Evaluation of Interchange Transactions**

|    |  |       |     |     |  |  |
|----|--|-------|-----|-----|--|--|
|    |  |       |     |     |  | 1, Column B.<br><br>OR<br><br>The transmission path between the Transmission Service Provider and its adjacent Transmission Service Providers was invalid, and the Transmission Service Provider did not deny the Arranged Interchange or curtail Confirmed Interchange. |
| R4 | Operations Planning, Same-day Operations, Real-time Operations | Lower | N/A | N/A | The Balancing Authority receiving a Reliability Adjustment Arranged Interchange denied it prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment 1, Column B, but did not communicate that fact to its Reliability Coordinator within 10 minutes of the denial. | The Balancing Authority receiving a Reliability Adjustment Arranged Interchange did not approve or deny it prior to the expiration of the reliability assessment period defined in the timing requirements in Attachment 1, Column B.                                    |
| R5 | Operations Planning, Same-day Operations, Real-time Operations | Lower | N/A | N/A | N/A  | One of the conditions in Requirement 5 Parts 5.1, 5.2, or 5.3 was met, and the Sink Balancing Authority transitioned an Arranged Interchange to Confirmed Interchange.   |

**Standard INT-006-4 — Evaluation of Interchange Transactions**

|    |  |       |     |     |   |   |
|----|--|-------|-----|-----|---|---|
| R6 | Operations Planning, Same-day Operations, Real-time Operations | Lower | N/A | N/A | <p>The Sink Balancing Authority did not distribute notification of whether an Arranged Interchange was transitioned to Confirmed Interchange to all of the entities listed in Requirement R6 Parts 6.1-6.5.</p> <p>OR</p> <p>The Sink Balancing Authority distributed notifications of whether an Arranged Interchange was transitioned to Confirmed Interchange, but did not distribute the notifications such that they were delivered in time to be incorporated into scheduling systems prior to ramp start as specified in Attachment 1, Column D.</p> | <p>The Sink Balancing Authority did not distribute notification of whether an Arranged Interchange was transitioned to Confirmed Interchange to any of the entities listed in Requirement R6 Parts 6.1-6.5.</p> |
|----|--|-------|-----|-----|---|---|

**D. Regional Variances**

None.

**E. Interpretations**

None.

**F. Associated Documents**

None.

Attachment 1 – Timing Tables

**Timing Requirements for all Interconnections except WECC**

|  |                            | <b>A</b>  | <b>B</b>  | <b>C</b>   | <b>D</b>  |
|--|----------------------------|---|---|--|---|
| <b>If Arranged Interchange<sup>4</sup> is Submitted</b>          | <b>Time Classification</b> | <b>Sink BA Makes Initial Distribution of Arranged Interchange<sup>5</sup></b> | <b>BA and TSP Conduct Reliability Assessments</b> | <b>Compilation and Distribution Status<sup>5</sup></b> | <b>BA Prepares Confirmed Interchange for Implementation</b> |
| > 1 hour after the start time                                    | ATF                        | ≤ 1 minute from receipt   | Entities have up to 2 hours to respond.           | ≤ 1 minute from receipt of all Reliability Assessments | NA  |
| <15 minutes prior to ramp start and ≤1 hour after the start time | Late                       | ≤ 1 minute from receipt   | Entities have up to 10 minutes to respond.        | ≤ 1 minute from receipt of all Reliability Assessments | ≤ 3 minutes after receipt of Confirmed Interchange          |
| <1 hour and ≥ 15 minutes prior to ramp start                     | On-time                    | ≤ 1 minute from receipt   | ≤ 10 minutes from Arranged Interchange receipt    | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| ≥ 1 hour to < 4 hours prior to ramp start                        | On-time                    | ≤ 1 minute from receipt   | ≤ 20 minutes from Arranged Interchange receipt    | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 39 minutes prior to ramp start                            |
| ≥ 4 hours prior to ramp start                                    | On-time                    | ≤ 1 minute from receipt   | ≤ 2 hours from Arranged Interchange receipt       | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 1 hour 58 minutes prior to ramp start                     |

<sup>4</sup> Time Classifications and deadlines apply to both initial Arranged Interchange submittal and any subsequent modifications to the Arranged Interchange.

<sup>5</sup> Times are for software performance specifications, only.

**Timing Requirements for WECC**

|  |                            | A   | B   | C  | D   |
|--|----------------------------|---|---|--|---|
| <b>If Arranged Interchange<sup>6</sup> is Submitted</b>  | <b>Time Classification</b> | <b>Sink BA Makes Initial Distribution of Arranged Interchange<sup>7</sup></b> | <b>BA and TSP Conduct Reliability Assessments</b> | <b>Compilation and Distribution Status<sup>7</sup></b> | <b>BA Prepares Confirmed Interchange for Implementation</b> |
| >1 hour after the start time   | ATF                        | ≤ 1 minute from receipt   | Entities have up to 2 hours to respond.           | ≤ 1 minute from receipt of all Reliability Assessments | NA  |
| <10 minutes prior to ramp start and ≤1 hour after transaction start time where transaction start time is at the top of the hour  | Late                       | ≤ 1 minute from receipt   | Entities have up to 10 minutes to respond.        | ≤ 1 minute from receipt of all Reliability Assessments | ≤ 3 minutes after receipt of Confirmed Interchange          |
| <15 minutes prior to ramp start and ≤1 hour after transaction start time where transaction start time is not the top of the hour | Late                       | ≤ 1 minute from receipt   | Entities have up to 10 minutes to respond.        | ≤ 1 minute from receipt of all Reliability Assessments | ≤ 3 minutes after receipt of Confirmed Interchange          |
| 10 minutes prior to ramp start where transaction start time is at the top of the hour  | On-time                    | ≤ 1 minute from receipt   | ≤ 5 minutes from Arranged Interchange receipt     | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| 11 minutes prior to ramp start where transaction start time is at the top of the hour  | On-time                    | ≤ 1 minute from receipt   | ≤ 6 minutes from Arranged Interchange receipt     | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |

<sup>6</sup> Time Classifications and deadlines apply to both initial Arranged Interchange submittal and any subsequent modifications to the Arranged Interchange.

<sup>7</sup> Times are for software performance specifications, only.

**Standard INT-006-4 — Evaluation of Interchange Transactions**

|   |                            | <b>A</b>  | <b>B</b>  | <b>C</b>   | <b>D</b>  |
|---|----------------------------|---|---|--|---|
| <b>If Arranged Interchange<sup>6</sup> is Submitted</b>                               | <b>Time Classification</b> | <b>Sink BA Makes Initial Distribution of Arranged Interchange<sup>7</sup></b> | <b>BA and TSP Conduct Reliability Assessments</b>         | <b>Compilation and Distribution Status<sup>7</sup></b> | <b>BA Prepares Confirmed Interchange for Implementation</b> |
| 12 minutes prior to ramp start where transaction start time is at the top of the hour | On-time                    | ≤ 1 minute from receipt   | ≤ 7 minutes from Arranged Interchange receipt             | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| 13 minutes prior to ramp start where transaction start time is at the top of the hour | On-time                    | ≤ 1 minute from receipt   | ≤ 8 minutes from Arranged Interchange receipt             | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| 14 minutes prior to ramp start where transaction start time is at the top of the hour | On-time                    | ≤ 1 minute from receipt   | ≤ 9 minutes from Arranged Interchange receipt             | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| <1 hour and ≥ 15 minutes prior to ramp start  | On-time                    | ≤ 1 minute from receipt   | ≤ 10 minutes from Arranged Interchange receipt            | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 3 minutes prior to ramp start                             |
| ≥ 1 hour and < 4 hours prior to ramp start  | On-time                    | ≤ 1 minute from receipt   | < 20 minutes from Arranged interchange receipt            | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 39 minutes prior to ramp start                            |
| ≥ 4 hours prior to ramp start   | On-time                    | ≤ 1 minute from receipt   | ≤ 2 hours from Arranged Interchange receipt               | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 1 hour 58 minutes prior to ramp start                     |
| Submitted before 10:00 PPT with start time ≥ 00:00 PPT of following day               | On-time                    | ≤ 1 minute from receipt   | By 12:00 PPT of day the Arranged Interchange was received | ≤ 1 minute from receipt of all Reliability Assessments | ≥ 1 hour 58 minutes prior to ramp start                     |

## Application Guidelines

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### Guidelines and Technical Basis

Many aspects of managing interchange are supported by software applications. There are fundamental tasks that each entity should be able to perform in an electronic manner as listed below.

A Load-Serving Entity and Balancing Authority that submits Requests for Interchange should have the capability to electronically:

- Submit a Request for Interchange to a Sink Balancing Authority
- Submit a request to modify Interchange
- Receive distributions of Confirmed Interchange
- Receive distributions of Reliability Adjustment Arranged Interchanges

Each Sink Balancing Authority should have the capability to electronically:

- Receive a Request for Interchange
- Receive a request to modify Interchange
- Validate Requests for Interchange by verifying:
  - Source Balancing Authority megawatts equal Sink Balancing Authority megawatts (adjusted for losses, if appropriate).
  - All reliability entities involved in the Arranged Interchange are valid.
  - Generation source and load sink are defined.
  - Megawatt profile is defined.
  - Interchange duration is defined.
- Validate request to modify Interchange by verifying:
  - Source Balancing Authority megawatts equal Sink Balancing Authority megawatts (adjusted for losses, if appropriate).
  - Megawatt profile is defined.
  - Interchange duration is defined.
- Distribute the validated Request for Interchange as Arranged Interchange
- Distribute the validated Reliability Adjustment Arranged Interchanges
- Receive communication of approval or denial of Arranged Interchange
  - Distribute notification as each entity approves or denies an Arranged Interchange.
  - Transition Arranged Interchange to Confirmed Interchange if all approvals are received.
  - Distribute notification of whether Arranged Interchange was transitioned to Confirmed Interchange or not.

## Application Guidelines

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- Submit a request to modify Interchange
- Each Load-Serving Entity that approves or denies Arranged Interchange, and each Balancing Authority and Transmission Service Provider should have the capability to electronically:
  - Receive distribution of Arranged Interchange
  - Communicate approval or denial of the Arranged Interchange to the Sink Balancing Authority
  - Receive notification of whether Arranged Interchange was transitioned to Confirmed interchange or not.
  - Submit a request to modify Interchange
- While interchange is normally facilitated using electronic communication and software tools, there are occasions with those electronic capabilities are reduced or unavailable. It is recommended that all entities involved in aspects of Interchange should have, maintain and implement a plan describing the manner and timing in which all capabilities listed above will be provided when electronic capabilities are reduced or unavailable. Each plan should address the following topics:
  - Alternate methods of communicating Interchange information between Purchasing Selling Entities, Balancing Authorities, and Transmission Service Providers.
  - How to notify others that it is activating the plan
  - How it will process requests for emergency Arranged Interchange and Reliability Adjustment Arranged Interchange.
  - Restrictions and limitations that may apply during the period of reduced or unavailable capability (such as limits on volume, only accepting emergency transactions, etc.).
  - Delegation of approval rights and proxy actions, if such approaches will be used.
  - How known Confirmed Interchange will be scheduled following a reduction in or loss of capability.
  - Personnel plans for short-term and extended periods.
  - Training of personnel in the use of the plan.