## Standard Development Timeline

*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 on (February 12, 2009).

5. First draft of proposed standard posted (November 10, 2009).

6. Project became inactive until February, 2013.

7. Second draft of standard posted for 30 day informal comment period (July 25-August 23, 2013).

8. Third draft of standard posted for 45 day formal comment period with parallel initial ballot (September 30 – November 15, 2013).

~~8.~~9. Fourth draft of standard posted for 45 day formal comment period with parallel initial ballot (December 9, 2013 – January 22, 2014).

**Description of Current Draft**

This is the ~~fourth~~ fifth draft of the proposed standard and is being posted for ~~stakeholder comments and an additio~~final ballot. This draft includes ~~the~~ modifications based on comments submitted by stakeholders.

| Anticipated Actions | Anticipated Date |
|---|---|
| ~~45-day Formal Comment Period with Parallel Initial Ballot~~ | ~~December 2013 January 2014~~ |
| ~~Recirculation~~ Final ballot | January 2014 |
| BOT adoption | February 2014 |
| File standard with regulatory authorities. | February 2014 |

Effective Dates

First day of the second calendar quarter after the date that this standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval

by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is six months after the date this standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.


## Version History

| Version | Date | Action | Change Tracking |
|---------|------|--------|-----------------|
| 0 | April 1, 2005 | Effective Date | New |
| 1 | May 2, 2006 | Adopted by the NERC Board of Trustees | Revised |
| 2 | October 9, 2007 | Adopted by the NERC Board of Trustees (Removal of WECC Waiver) | Revised |
| 2 | July 21, 2008 | Approved by FERC | Revised |
| 3 | TBD | Adopted by the NERC Board of Trustees | Revised under Project 2008-12 |

*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:      Dynamic Transfers**

   **2.  Number:**   INT-004-3

   **3.  Purpose:**   To ensure Dynamic Schedules and Pseudo-Ties are communicated and accounted for appropriately in congestion management procedures.

   **4.  Applicability:**

   **4.1.** Balancing Authority

   **4.2.** Purchasing-Selling Entity

   **5.  Background:**

   This standard was revised as part of the Project 2008-12 Coordinate Interchange Standards effort to ensure the transparency of Ddynamic tTransfers.

   - R1 is modified from Requirement R1 of INT-001-3 and transferred into INT-004-3. The revised requirement now includes Pseudo-Ties.

   - R2 is modified from INT-004-2 to separate the triggers for the review of the Ddynamic tTransfer and when a modification is required for the Ddynamic Ttransfer.

   - R1 and R2 now also apply to Pseudo-Ties. The requirements to create an RFI for Pseudo-Ties ensure that all entities involved are aware of the Ddynamic tTransfer and agree that the various responsibilities associated with the dynamic transfer have been agreed upon.

   - R3 is created to ensure that coordination occurs between all entities involved prior to the initial implementation of a Pseudo-Tie.

   - The Guidelines and Technical Basis section was added to provide a summary of the considerations that must be given when establishing any Ddynamic tTransfer.

## B. Requirements and Measures

   **R1.** Each Purchasing-Selling Entity that secures energy to serve Load via a Dynamic Schedule or Pseudo-Tie shall ensure that a Request for Interchange is submitted as an on-time[1] Arranged Interchange to the Sink Balancing Authority for that Dynamic Schedule or

   > Rationale for R1: This Requirement is intended to ensure that an RFI is submitted for a Dynamic Schedule or Pseudo-Tie. If a forecast is available, it is expected that the forecast will be used to indicate the energy profile on the RFI. If no forecast is available, the energy profile cannot exceed the maximum expected transaction MW amount.

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[1] Please refer to the timing tables of INT-006-4.

Pseudo-Tie, unless the information about the Pseudo-Tie is included in congestion management procedure(s) via an alternate method. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations*]

**M1.** The Purchasing-Selling Entity shall have evidence (such as dated and time-stamped electronic logs or other evidence) that a Request for Interchange was submitted for Dynamic Schedules and Pseudo-Ties as an on-time Arranged Interchange to the Sink Balancing Authority for the Dynamic Schedule or Pseudo-Tie. For Pseudo-Ties included in congestion management procedure(s) via an alternate method, the Purchasing-Selling Entity shall have evidence such as Interchange Distribution Calculator model data or written / electronic agreement with a Balancing Authority to include the Pseudo-Tie in the congestion management procedure(s). (R1)

**R2.** The Purchasing-Selling Entity that submits a Request Ffor Interchange in accordance with Requirement R1 shall ensure the Confirmed Interchange associated with that Dynamic Schedule or Pseudo-Tie is updated for future hours in order to support congestion management procedures if any one of the following occurs**:** [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same Day Operations, Real Time Operations*]

> Rationale for R2: This requirement does not preclude tags from being updated at any time. The requirement specifies conditions under which the tag must be updated.

    **2.1.** For Confirmed Interchange greater than 250 MW for the last hour, the actual hourly integrated energy deviates from the Confirmed Interchange by more than 10% for that hour and that deviation is expected to persist.

    **2.2.** For Confirmed Interchange less than or equal to 250 MW for the last hour, the actual hourly integrated energy deviates from the Confirmed Interchange by more than 25 MW for that hour and that deviation is expected to persist.

    **2.3.** The Purchasing-Selling Entity receives notification from a Reliability Coordinator or Transmission Operator to update the Confirmed Interchange.

**M2.** The Purchasing-Selling Entity shall have evidence (such as dated and time-stamped electronic logs, reliability studies or other evidence) that it updated its Confirmed Interchange Requests for Interchange when the deviation met the criteria in Requirement R2, Parts 2.1- 2.3. (R2)

> Rationale for R3: This Requirement is intended to ensure that a Pseudo-Tie is properly established prior to its implementation. Transparency of all Pseudo-Ties ensures proper modeling by all impacted entities. This requirement will become effective when the NAESB Electric Industry Registry (EIR) accepts Pseudo-Tie registrations. Requirements for Pseudo-Tie registration will be defined in NAESB business practices which are developed through open industry practices. All existing Pseudo-Ties will need to be registered and verified. This will be addressed in the Project 2008-12 implementation plan.

**R3.** Each Balancing Authority shall only implement or operate a Pseudo-Tie that is included in the NAESB Electric Industry Registry publication in order to support congestion management procedures. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]

**M3.** The Balancing Authority shall have evidence (such as dated and time-stamped electronic logs or other evidence) that it only implemented or operated a Pseudo-Tie that is included in the NAESB Electric Industry Registry publication. (R3)

## C. Compliance

1. **Compliance Monitoring Process**

   1.1. **Compliance Enforcement Authority**

   Regional Entity

   1.2. **Evidence Retention**

   The Purchasing-Selling Entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority (CEA) 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 Purchasing-Selling Entity shall maintain evidence to show compliance with R1 and R2 for the most recent 3 calendar months plus the current month.

   - The Balancing Authority shall maintain evidence to show compliance with R3 for the most recent 3 calendar months plus the current month.

   If a Purchasing-Selling Entity or Balancing Authority 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 Audit

   Self-Certification

   Spot Check

   Compliance Investigation

   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 | Lower | N/A | N/A | N/A | The Purchasing-Selling Entity secured energy to serve Load via a Dynamic Schedule or Pseudo-Tie, but did not ensure that a Request for Interchange was submitted as on-time Arranged Interchange to the Sink Balancing Authority, and did not include information about the Pseudo-Tie in congestion management procedure(s) via an alternate method.~~,~~ |
| R2 | Operations Planning, Same Day Operations | Lower | N/A | N/A | N/A | A deviation met or exceeded the criteria in Requirement R2 Parts 2.1- 2.3 and was expected to persist, but the Purchasing-Selling Entity did not ensure that the Confirmed Interchange associated with that Dynamic Schedule or Pseudo-Tie was updated for future hours. |

| R3 | Operations Planning | Lower | N/A | N/A | N/A | The Balancing Authority ~~did not~~ implement<u>ed</u> or operate<u>d</u> a Pseudo-Tie that was <u>not</u> included in the NAESB Electric Industry Registry publication. |
|----|---------------------|-------|-----|-----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|

## D. Regional Variances

None.

## E. Interpretations

None.

## F. Associated Documents

The complete Dynamic Transfer Reference Guidelines document is included in the NERC Operating Manual at:
http://www.nerc.com/files/opman_3_2012.pdf.

### Guidelines and Technical Basis

This standard requires the submittal of an Arranged Interchange for both Dynamic Schedules and Pseudo-Ties. In general, Pseudo-Ties are accounted for by all parties as actual Interchange and Dynamic Schedules are accounted for as Scheduled Interchange. The obligations of the entities involved in each type of D~~d~~ynamic T~~t~~ransfer are dependent on the type of D~~d~~ynamic T~~t~~ransfer selected. These guidelines provide items that should be considered when determining which type of D~~d~~ynamic T~~t~~ransfer should be utilized for a given situation.

**General Considerations When Establishing and Implementing Dynamic Transfers:**

- During the setup of a D~~d~~ynamic T~~t~~ransfer, a common source of data is established. During that setup, plans should also be established for what will occur when that normal source of data is not available.

- Following any reliability adjustments to a Dynamic Schedule, each Balancing Authority shall use agreed upon values that ensure any limit established by the reliability adjustment is not exceeded.

    - Since the Net Scheduled Interchange term used in its control ACE (or alternate control process) is not the value from the Confirmed Interchange, but from some common source, each Balancing Authority must be prepared to take action to control the data feeding that common source.

- Each Attaining Balancing Authority shall incorporate resources attained via Dynamic Schedules or Pseudo-Ties into its processes for establishing Contingency Reserve requirements, as well as for the purposes of measuring Contingency Reserve response.

The table below describes and outlines the obligations associated with the typical historical application of Pseudo-Ties and Dynamic Schedules related to many of the topics addressed above. In practical application, however, both the Native Balancing Authority and Attaining Balancing Authority can agree to exchange the obligations from that shown in the table below.

| BA's Obligation/modeling | Pseudo-Tie | Dynamic Schedule |
|---|---|---|
| Generation planning and reporting and outage coordination | Attaining BA | Typically, Native BA but may be re-assigned (wholly or a portion) to the Attaining BA |
| CPS and DCS recovery /reporting and RMS | Attaining BA | Attaining and/or Native BA (depending on agreements) |
| Operational responsibility | Attaining BA | Native BA |
| BA services<br><br>FERC OATT Schedules 3–6 and other ancillary services as | Attaining BA | Native BA |

| required | | |
|---|---|---|
| Ancillary services associated with transmission<br><br>FERC OATT Schedules 1–2 and other ancillary services as required | Attaining/Native BA (as agreed) | Attaining/Native BA (as agreed) |
| ACE Frequency Bias calc/setting | The Native and Attaining BA(s) shall adjust the control logic that determines their Frequency Bias Ssetting to account for the Ffrequency Bbias characteristics of the loads and/or resources being assigned between BA(s) by the Pseudo-Tie | The Attaining BA should include the Load from its Ddynamic sSchedule as a part of its forecast load to set Ffrequency Bbias requirement.  The Native BA should change its Load used to set Frequency Bias setting by the same amount in the opposite direction. |
| Load forecasting and reporting | Attaining BA | Native BA |
| Manual load shedding during an Energy Emergency Alert (EEA) | Attaining BA | Native BA |

**General Considerations for Curtailments of Dynamic Transfers**

The unique handling of curtailments of Dynamic Transfers is described Iin NERC's Dynamic Transfer Reference Guidelines, Version 2., it describes unique handling of curtailments of dynamic transfers.

For Dynamic Schedules:

> **If transmission service between the Source and Sink BA(s) is curtailed then the allowable range of the magnitude of the schedules between them, including Dynamic Schedules, may have to be curtailed accordingly. All BAs involved in a Dynamic Schedule curtailment must also adjust the Dynamic Schedule Ssignal input to their respective ACE equations to a common value. The value used must be equal to or less than the curtailed Dynamic Schedule tag. Since Dynamic Schedule tags are generally not used as Ddynamic tTransfer Ssignals for ACE, this adjustment may require manual entry or other revision to a telemetered or calculated value used by the ACE.**

For Pseudo-Ties:

> **If transmission service between the Native and Attaining BA(s) is curtailed, then the allowable range of the magnitude of the Pseudo-Ties between them must be limited accordingly to these constraints.**

Both sections above describe ~~that~~ when Curtailments (typically communicated through e-Tags) of <u>D</u>~~d~~ynamic <u>T</u>~~t~~ransfers ~~occur, they~~ require additional action by Balancing Authorities to ensure compliance with the Curtailment.

Curtailments of most tagged transactions are implemented through a change in the Source and Sink Balancing Authorities' ACE equations.  However, changes, including Curtailments, in Dynamic Schedule and Pseudo-Tie tagged transactions do not change the Source and Sink Balancing Authorities' ACE equations directly.  These types of transactions impact the ACE equation via the Dynamic Transfer Signal, not by the e-Tag.  As such, Balancing Authorities need to develop additional automation or perform additional manual actions to reduce the Dynamic Transfer Signal in order to comply with the curtailment.

**Requirement R1:**

**Requirement R2:**

**Requirement R3:**