2018 API 2.a.i 1 Joint assignment to OASIS and Business Practices Subcommittees

Paragraphs 1627 of Order 890 – Posting of additional information on OASIS regarding firm transmission curtailments

Individual Assignment: Provide a review of the API 2ai1 Template Structure and report on the information that is available from the IDC and the ECC

**This work paper reflects the above assignment as it relates to the previously developed 2.a.i.1 Template and the Eastern Interconnect**

2018 API 2ai1 Template Structure

1627. “…These postings must include all circumstances and events contributing to the need for a firm service curtailment, specific services and customers curtailed (including the transmission provider’s own retail loads), and the duration of the curtailment….” (Excerpt from FERC Order 890 para 1627)

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| Required Item | Data Element |
| Identification of the event (Firm curtailment event) | EVENT\_ID (Definition in WEQ-003 will need to be expanded to include local procedures) |
| Reason (Circumstances & events contributing) | FACILITY\_CLASS & FACILITY\_LIMIT\_TYPE & ANNOTATION & PROCEDURE\_NAME & PROCEDURE\_LEVEL |
| Services Curtailed (Transmission product & capacity) |  |
| Customers Curtailed (Entity Code) |  |
| Duration of the event | START\_TIME & STOP\_TIME (curtailment event level & sub level events as appropriate ) |

**Interchange Distribution Calculator (IDC)**

The Interchange Distribution Calculator (IDC) uses TLR levels to define the severity of the loading on the transmission system as well as actions that will be taken by the IDC to relieve the overloading. TLRs are issued in levels from 0-6. TLR levels 3 and 5 are also sub-divided as a or b. These subdivisions define the timing for the start of the TLR.

The NERC Transmission Loading Relief (TLR) procedure utilizes a Pro-Rata curtailment method for all of the TLR Levels that require MW curtailment. For the Curtailment/Reallocation calculations during TLR Level 3a and 5a, Non-Firm Priority transactions (1NS through 6NN) and Firm Priority transactions (7F and 7FN) are assigned sub-priorities within each individual priority bucket in order to make the curtailment of Non-Firm transactions more efficient. When the transactions have been assigned to their Service Priority Bucket each tag is then analyzed a second time to give them a Sub-Priority within their associated Service Priority bucket such that when it is time to curtail in this bucket the MWs are curtailed utilizing these priorities.

Information currently available from the Interchange Distribution Calculator (IDC), application used in the Eastern Interconnect (EI) to implement interchange transaction curtailments, is provided in a number of sections. The following shows the primary sections with key data therein:

1. Flowgate Data (key data)
   1. IDC assignment identifier for a specific event
   2. Common Name/description
   3. RC and TP and Control Area for specified flowgate
2. TLR Data (key data)
   1. Issuing RC
   2. NERC report participation (Y/N)
   3. NNL involved (Y/N)
   4. TLR Start time/Date
   5. TLR Stop Time/Date
   6. Initial and Highest TLR for the specific event
3. TLR action data
   1. Confirmation time of each TLR issuance
   2. Current level
   3. Priorities involved
   4. Schedules cut or held with respective levels
   5. NNL relief with Control Areas and amounts
   6. Market relief involved in event
4. TLR Schedule Totals
   1. Priority of involved schedules with # of tags cut or held and amounts for each
5. TLR Tracking
6. Type of transaction involved
   1. Tag
   2. Relief provided over time
7. Next Hour Reallocation Priority Summary
   1. Schedule data for next hour by priority
8. Next Hour Allocation (key data)
   1. Sink RC
   2. Tag Name
   3. Source and Sink
   4. Tag Priority
   5. Curtailed amount
9. Tag Composite Transmission Stack Detail (per involved tag)
   1. Tag Name
   2. Impact
   3. Flowgate
   4. TLE Level
   5. Direction
   6. Market Coordination (MO)
   7. Dynamic Schedule (Y/N)

**IDC data Complementary to the proposed 2.a.i.1 Template**

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| --- | --- | --- | --- | --- |
| **Required Item** | **Data Element Name** | **Data Element Description** | **IDC Data** | **IDC Report Section** |
| **Identification of the event (Firm curtailment event)** | EVENT\_ID | The EVENT\_ID Data Element is any Regional or Interconnection-wide recognized security event identifier for events that are of greater scope than those administered locally by the Transmission Provider (e.g., a NERC Reliability Coordinator assigned identifier corresponding to a particular implementation of the NERC TLR procedure). | IDC assignment identifier for a specific event | 1a |
| **Reason (Circumstances & events contributing)** | FACILITY\_CLASS | Type of limiting device such as ‘transformer’, ‘line’ or ‘Flowgate’ | Flowgate common name/description | 1b |
|  | FACILITY\_LIMIT-TYPE | For example: thermal, stability, voltage | Not present – inherent to flowgate definition |  |
|  | Annotation | Additional notes, comments or other descriptive  information with the posted event. | No specific field |  |
|  | ProcedureName | Name of a transmission security procedure:  - NERC TLR as defined in NERC Standard IRO-006  - WECC USF as defined in WECC Policy  - Local procedure as registered by Transmission  Providers | IDC procedure specific to TLR procedure | IDC report |
|  | Procedure\_Level | Levels or stages associated with actions to be taken in  implementation of a transmission security procedure as  defined in:  - NERC Standard IRO-006 for the NERC TLR procedure  - WECC Policy for the WECC USF procedure  - Local procedures as registered by Transmission  Providers | Starting and Highest Level from TLR data section | 2f |
| **Services Curtailed (Transmission product & capacity)** |  |  | Tag Marginal Priority and Amounts from Next Hour Schedule Reallocation | 8d and 8e |
| **Customers Curtailed (Entity Code)** |  |  | Contained within the e-tag name shown in the Next Hour Schedule Reallocation section | 9a |
| **Duration of the event** |  | START\_TIME & STOP\_TIME (curtailment event level & sub level events as appropriate ) | Start and End time from TLR data section | 2d and 2e |

**It appears that the IDC report contains sufficient information to meet FERC firm curtailment information posting directive. The key data element that is not presented as a “stand-alone” element is the Customer involved. However, given the defined structure of an e-tag name, the PSE [Customer] is the second element in the name. This element is referred to as the “Transaction ID” in the *scheduledetail* template.**