NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

Distribution Factor Working Group Meeting

March 29, 2005

Minutes

Administrative Matters

Chairman Patrick J. Shanahan called the Distribution Factor Working Group (DFWG) meeting to order at 8:30 a.m. on March 29, 2005. Attendance is listed in Exhibit A.

The minutes from the November 3–4, 2004 and the January 5–6, 2005 meeting were approved with modifications.

Brian Nolan will get a copy of the two DFWG list servers and distribute them to the membership. Kannan should be on both list servers and listed on the Roster as a Data Coordinator.

Update DFWG Scope

DFWG reviewed and modified its current scope. This will be distributed for discussion and vote during a conference call. Once approved by DFWG it will be forwarded to ORS for review and approval.

IDC Base Case Status

April Model

The April base case has been forwarded to OATI for validation. Two versions of this base case were submitted. The primary case has all of the approved MISO marginal zones and all of the other RC changes. The secondary base case has all of RC changes but none of the MISO marginal zones

PSS/E Rev 28

Per the discussion at the ORS meeting, the conversion from PSS/E rev 26 to rev 28 will be delayed until the conversion to the summer base case at the earliest. This conversion may be delayed until after the summer to ensure that all participants can handle three-winding transformers appropriately. There are still some issues on how the three-winding transformers would be handled in the Book of Flowgates and in the IDC.

It is possible to convert to rev 28 but to convert any three-winding transformers to two-winding transformers. Once this conversion is completed all changes to transformers in the model would

need to be submitted using the two-winding transformers, new transformers could be submitted in either two or three-winding transformer models. This would allow for the small step conversion to rev 28 and allow for the retirement of rev 26.

This staged conversion would begin with the summer 2005 base case, assuming that the SDX and IDC are ready to accept the new model structure. Jim Busbin will bring this conversion schedule to SDX SDWT and IDCWG at the April meetings.

Case Documentation

DFWG discussed the possibility of creating a bus and branch library. This would allow for the keeping different names for each element for display purposes. Currently the SDX has the ability to hold "common" names for model elements. The Multiregional Modeling Working Group (MMWG) collects and posts a model series data dictionary that could be used to populate the common names in SDX. DFWG could then take the data dictionary and map it to the base cases that are loaded into SDX to populate the common names.

For Branch naming, the station-to-station name would probably be the most meaningful with the voltage level. For transformers, the inclusion of the voltage levels could be used to let other entities know that this element is a transformer.

At this time, DFWG has not been asked to perform the task of keeping the common names for the IDC base cases, but this would fall in line with the modeling work that DFWG currently performs. The first step in this process would be to create and make available the bus dictionary. Pat will request access to the MMWG data dictionary and find out what can be downloaded from the SDX system.

Flowgate Administration

The February and March flowgate administration document were reviewed and the permanent flowgates were approved. Pat will work with the RC's not in attendance to get additional detail on the temporary flowgates used for TLR. Pat will forward this to the ORS for final approval.

In the April Book of Flowgates there are a couple of new multi-element flowgates. Each of these are listed as informational. One flowgate, 3067, was temporary flowgate 12772 and had a TLR called on it. These will need to be tracked to ensure that they are not converted to a reliability flowgate without review.

One-line Diagrams

During the process of developing the RCIS rewrite project, it was noted that it is difficult for the RC's to know where the flowgates are located. The RCIS rewrite project team has asked DFWG to discuss the possibility of coordinating the collection of the two different level (close-up and wide area) diagrams of the flowgates. Initially the diagrams would be for only those flowgates with TLR's called on them in the past two years.

One option for the wide area view would be to request the EIA-411 maps, in electronic format, and then cut the maps down to size and highlight the area of the flowgate.

Paul, Jim, Jason, and Chi will develop a couple of diagrams for demonstration purposes. Several Regions have maps that are of sufficient detail to fit both the close in and wide area views.

Future of Book of Flowgates

With the change to PSS/E rev 28, changes to the Book of Flowgates will be needed. The primary change is to allow for all three windings of the three-winding transformers. There is also the

possibility of changing the current structure of the Book of Flowgates from the Excel to an Access or other database structure.

In addition to three-winding transformers, other changes could be made such as removal of the MRD flowgate page and adding a checkbox for the benchmark flowgates.

With the staged implementation of rev 28, the change to the Book of Flowgates may be better left to the stage when the three-winding transformers are included in the IDC model.

Pat, Chi, Kannan, Phillip, and Don will work on developing an alternative Book of Flowgates.

Change Order 38-I (PAR Control)

During the month of March, the PAR taps were only to be moved in emergency purposes. During the month of April, the PAR taps will have a plus or minus bandwidth of 200 on the entire interface. How the PAR taps are moved is up to MISO and IMO to figure out and report back.

Determining the response factors on the nearby flowgates if the taps are moved by a certain amount was a feature of the change order that needs to be done. The calculation would be for certain flowgates, since it would be difficult to calculate the response factors for all of the flowgates.

MISO Market Opening Issues

OATI has a backup case that can be loaded into the IDC if the MISO market does not start up on April 1.

Marginal Zone Analysis

The IDC, for modeling purposes, needs an RTO level, Area level, and a Zone level. This is a model level that the current PSS/E models cannot accommodate. PJM did not need all three levels of modeling since the RTO and Control Area is the same footprint. If an element needs to be mapped to more then two areas/zones then an external table structure would be needed.

One use of the external table would be the grandfathered agreements that MISO currently has to keep track of. Since the grandfathered agreements do not change as much, the external table would be mostly static.

Posting

The Base Case, Book of Flowgates, MUST Flowgate and subsystem files, and Minutes postings are up-to-date.

Documentation of IDC Modeling Processes

The latest draft of the Base Case Modeling guidelines (March 3, 2005) was reviewed.

Next Call/Meeting

What	Date	Time	Location
Conference Call	April 25, 2005	10 am Eastern for one hour	Conference Call/WebEx
Conference Call	May 10, 2005	10 am Eastern for two hours	Conference Call/WebEx
Meeting		Half day/half day	

Adjournment

Chairman Shanahan adjourned the meeting at 4 p.m. on March 29, 2005.

Attachment A

Attendance

Name	Representing	E-Mail Address
Pat Shanahan, Chairman	ATC	pshanahan@atcllc.com
Paul Graves	FRCC	Paul.Graves@pgnmail.com
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