

Final Meeting Notes

Balancing Authority Controls SDT — Project 2007-05

May 20, 2009 | 8:00 a.m. – 5:00 p.m.

May 21, 2009 | 8:00 a.m. – noon

Entergy Offices

Little Rock, Arkansas

Meeting and Conference Call

1. Administration

a. Antitrust Guidelines

Andy Rodriguez reviewed the anti-trust guidelines with meeting participants.

b. Introduction of Attendees

The following members and guests were in attendance:

- Larry Akens, Chair
- Tom Artau
- Harvie Beavers
- Gerry Beckerle
- Bill deVries
- Dave Folk
- Will Franklin
- Howard Illian
- Ken McIntyre
- Sydney Niemeyer
- Guy Quintin
- Scott Sells
- Mark Thomas
- Raymond Vice
- Corey Galik
- Andy Rodriguez

c. Approval of Agenda

The drafting team reviewed the Agenda. Gerry Beckerle moved that the group accept the agenda. The motion was seconded and approved unanimously.

d. Approval of Meeting Notes

The drafting team reviewed the meeting notes from the last meeting, and unanimously approved the meeting notes.

2. Coordination Efforts

Raymond Vice provided an update of latest work at the RBCSDT. The Frequency Model whitepaper has been developed, and will be posted soon for public review. The paper includes explanations of Frequency, Frequency Response, and problems with the two. It includes discussions of possible causes of frequency transients, including the on-peak/off-peak shifts. Mike Sutherland is expected to be doing some consulting for NERC in this area. The RBCSDT may modify BAL-001 or the BAAL based on these results. The RBCSDT is also discussing an “ACE Cap” for the BAAL when frequency is low but an entity has a positive ACE (or high and negative). There has been concern that because ACE is unlimited, transfers can occur that have a negative impact on SOLs and IROLs. This ACE Limit would add limits in these quadrants. These will probably be semi-dynamic limits based on the MMWG model (or perhaps the IDC Base Case) and data from SDX (working backwards to determine how much ACE creates a significant impact on a transmission facility).

WECC’s BAAL field trial is still being pursued, with WECC seeking 100% participation and protections against unscheduled flow (see above). WECC may be able to address with a similar approach, but there is some concern that the WECC model may not be of as high a quality as that used in the East. There is also some question regarding how this will interact with WATEC. However, it is believed that although BAAL does not force you to move like a normal “Time Error Correction,” regular operations and trends will move entities to the correct scheduled frequency.

Howard Illian provided an update on the FRSDT. There was some movement toward processing with the data collection, but it appears to have halted. Howard seemed to think it had to do with someone questioning if the data collection approach would work. Andy to see if he can find the status. (UPDATE: Andy spoke to Gerry Adamski – Gerry indicated that he believes some email discussions had slowed this down, but he would be trying to move it forward).

Andy Rodriguez provided an update on NAESB Coordination. Terry Bilke had requested a list of FERC directives and the approach the BACSDT was taking to address them. Andy and Larry Akens drafted a draft, which was shared with the team. The team made minor modifications to the document and agreed it was ready to share with Terry.

3. Discussion of Time Error Correction

The team discussed the updated BAL-004. Andy showed changes that he had proposed based on some other discussions with staff. The team provided some guidance regarding questions. Andy incorporated those questions into a comment form, and the team agreed that the comment form looked appropriate, but wished to discuss via e-mail prior to moving forward with posting.

The team also discussed the Eastern Interconnection field trial. The team asked Andy to bring the Field Trial forward to the Standards Committee so they may begin working on the processes for initiating the field trial.

No one was available to give an update on the ERCOT field trial. Andy was tasked with touching base with Ken McIntyre to get a status update.

4. BAL-012 Area Control Error

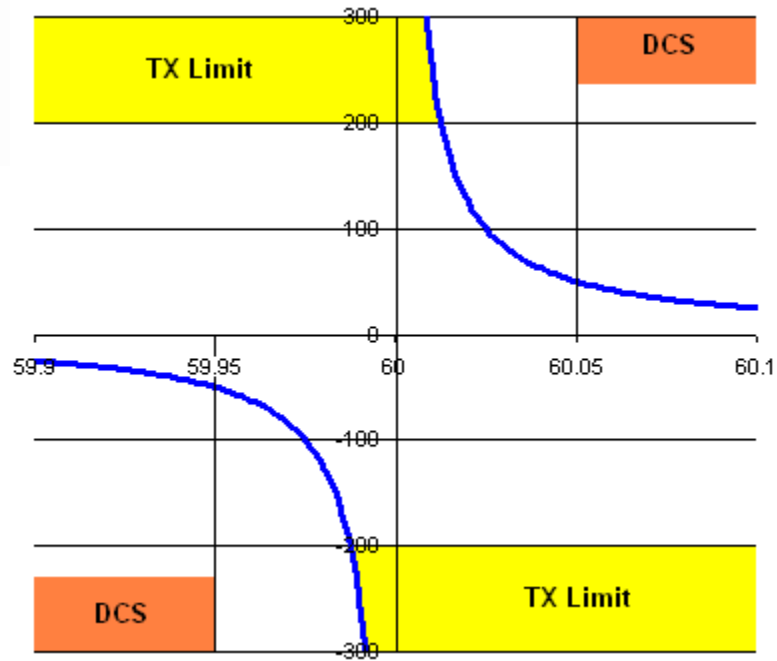
The SDT agreed to move forward with posting the standard for comment, but wants to make sure the genesis of the document is explained (perhaps including reference to the roadmap concepts). The team provided some guidance regarding questions. Andy incorporated those questions into a comment form, and the team agreed that the comment form looked appropriate, but wished to discuss via e-mail prior to moving forward with posting.

5. Discussion of BAL-002(DCS) and Operating Reserves

The team discussed the concepts of DCS and Reserves. Key discussion focuses on how to measure the different types of Reserves.

Contingency Reserves

Howard pointed out that Contingency Reserves should probably be assigned at the RE level. The team brainstormed a concept similar to that being discussed for BAAL to limit transfers, but applied to DCS violations. In this approach, an entity that crossed the “DCS Limit” (based on impact of the largest contingency on ACE) would have some short period of time to return. In other words, if you crossed your BAAL, you have 30 minutes to get back within your BAAL. But if you cross the BAAL and you cross your DCS limit, you have 15 minutes to get back within the DCS limit, and then another 15 (30 total) to get back within your BAAL. Additionally, we might be able to use the FTL Triggers to define what a “significant event” was. See graphic:



Guy Quintin pointed out that however we write these standards, we need to be sure to measure the right things. Contingency Reserves should be used to address sudden Increases in Load or Losses of Generation. Other things (like Loss of Load) should be covered in regulation. It was suggested that it might be of value to include additional asymptotic limits when $ACE > 0$ AND $f < 60$ as well as when $ACE < 0$ and $f > 60$ in order to avoid over-generating.

Gerry Beckerle made a point of reiterating that “Contingency Reserves should be for Contingencies – not regulation,” and suggested we make a point to discuss this with the RBC.

Andy was tasked with trying to set up a WebEx to discuss with the RBCSDT.

Regulating Reserves

The team discussed that CPS1 may be the correct measure for this. There are two things that can be measured: whether the entity determined the correct amount of regulation to carry, and if the entity was able to deploy it. Andy and Guy suggested that maybe a CPS1 measure calculated on a shorter interval (between 1 day and 1 week) would be of value. Howard suggested that the value of this would be limited, and CPS1 (with its rolling yearly average) covers performance effectively already.

The team discussed that to the extent we still had Reserve Sharing Groups, we would need to consider their size in determining how much Regulating Reserve should be required. i.e., if the entire Eastern Interconnection was one RSG, obviously largest single contingency would probably not be effective.

It was also pointed out that the size of your regulation requirement may be directly related to your scheduling interval (shorter interval -> smaller requirement). Raymond suggested this could be based on the highest ΔP for the last year based on 10-minute durations. Guy suggested that it could be historically based on 3 times the standard deviation of the load forecast error. It was mentioned that we needed to keep non-conforming loads in mind as well (e.g., depending on the kinds of loads you have, you may need more or less regulation).

The team debated again whether or not we should have reactive or proactive standards.

Frequency Responsive Reserves

This would be based on droop, deadband, and the reserve on a given resource, so it is probably handled by the Generator Owner or Operator. However, the BA would be responsible for ensuring that the appropriate amount for reserves are being provided. Team agreed this needed to be a “per interconnection” requirement. Gerry suggested that this could be based on loss of a unit, then prorated based on bias (provided that the bias was accurate). Guy suggested that a decline in frequency will generally halt on its own, given the size of the Interconnections – perhaps the focus should be to identify plausible islands, and then assign FRR to those areas? However, the team was uncertain how to identify “plausible” islands. Perhaps this needs to focus on avoiding under-frequency load shedding?

It was suggested that a performance metric might be to collect a series of events based on a frequency trigger and to determine individual performance so that an average performance could be determined (belief being that it is appropriate to not carry 100% of your requirement 100% of the time). Raymond said that Howard was working on a long-term solution, but stated that we need a short-term solution now. Howard thinks this might be possible more easily than has been anticipated.

Perhaps this should be looked at in a pre and post-contingency method, to determine whether or not entities were able to meet their load? The team debated again whether or not we should have reactive or proactive standards. Ultimately, the team agreed this would probably end up being a mix of proactive and reactive, and this would be the initial approach taken. Once the industry provides feedback on the initial approach, we can adjust accordingly.

6. Review of Roadmap

The SDT reviewed the updated roadmap.

DCS we believe may be able to be addressed under BAAL. Larry and Guy will work to create some slides that can be shared with the RBCSDT.

Larry, Guy, Raymond, and Gerry will continue to work on Operating Reserve definitions, and will also work on drafting some proactive requirements.

BAL-005 will be discussed at the next meeting, and the team will decide whether or not it is still needed.

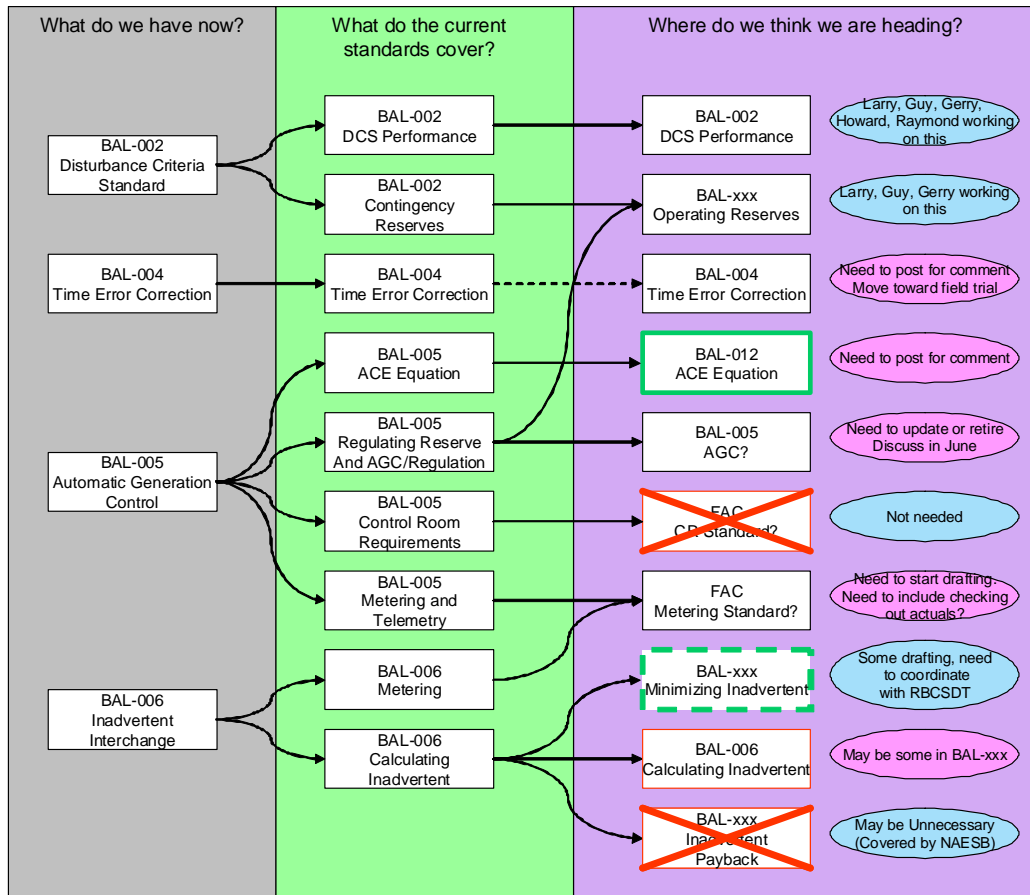
The team needs to create a metering standard in the FAC section of the standards to address the leftover metering items from BAL-005.

The “Minimize Inadvertent” standard is on hold. In our next meeting, we need to discuss the role of ADI. Larry agreed to forward an e-mail on ADI to the team. Howard pointed out that if CPS2 is eliminated, the need for ADI may go away.

Howard suggested that Inadvertent Payback may still need to belong to NERC for convenience sake.

Updated road map:

BACSDT Road Map



7. Assignments and Action Items

- Andy to follow up on FRSDT and find out what the hold up is.
- Andy to send out draft comment form to the team (done).
- Larry and Guy to develop a presentation on the “New DCS”
- Andy to work with Larry, Howard, RBCSDT to set up WebEx to discuss “New DCS.”
- Larry to forward e-mail on ADI to the team
- Andy to send Ken a reminder on the ERCOT Filed Test document
- Andy to bring EI Field Test plan to the SC
- Andy to post BAL-004 with updated 10mHz offset for comment.
- Larry Akens, Guy Quintin, and Gerry Beckerle to continue work on updating DCS standard.
- Larry Akens, Guy Quintin, Raymond Vice, and Gerry Beckerle to continue work on Operating Reserve standard.

8. Future Meetings (*Italics not confirmed*)

June 29 — Conference Call and WebEx from 10 a.m.–4 p.m. EDT
July 31 — Conference Call and WebEx from 10 a.m.–4 p.m. Central
August 27–28 — Montreal from 8 a.m.–5 p.m. and 8 a.m.–noon
September 30 — Conference Call and WebEx from 10 a.m.–4 p.m. Central
October 20–21 — TBD from 8 a.m.–5 p.m. and 8 a.m.–noon

9. Adjourn

The drafting team adjourned at approximately 11:00 a.m. on May 21, 2009.