



**SSC Meeting Summary
July 28-29, 2011
Cleveland, Ohio**

This meeting summary highlights SSC decisions, key discussion items, and next steps from the July 28-29, 2011, meeting of the EIPC Stakeholder Steering Committee.

Objectives:

- Review MRN-NEEM results and harden transmission limits for remaining Futures & Sensitivities
- Review and discuss available high-level transmission analyses
- Understand input needs for scenarios and analysis under Phase 2
- Finalize objectives and criteria for selecting Scenarios

Action Items:

- **Approve hardened transmission limits for Futures 6, 7 & 8**
- **Approve objectives and criteria for Scenario selection**

97 individuals were in attendance (74 in person, 23 via webinar). New SSC members Paul Napoli (TO/TD sector), and Sam Loudenslager, proxy for new SSC member Elana Wills (States-AR) were introduced. A full list of attendees is attached. The meeting agenda and presentations are available in their entirety at http://www.eipconline.com/SSC_Meetings.html.

1. FERC's action on Proposed Rulemaking on Transmission Planning and Cost Allocation (Docket No. RM10-23)

Mason Emmett of FERC gave a brief presentation on the recent activity on the transmission planning and cost allocation rule. Key points from the presentation and subsequent Q&A included the following:

- Procedures must be established to allow for inter-regional information sharing and evaluation of inter-regional transmission options; a specific inter-regional planning process is not required and multilateral stakeholder involvement is not required.
- Acknowledges that one size does not fit all so regions will continue to do regional planning in different ways.
- Regional planning (890) processes should take into account relevant, enacted federal and state public policy.
- Alternatives must be considered including non-wires options; transparency on decisions made is required.
- States may wish to create regional state committees to participate
- Regions will deal with the issue of right of first refusal on a case-by-case basis.
- FERC will hold webinars in September to kick start the implementation.

2. Overview of latest MRN-NEEM results

Ralph Luciani of CRA gave a brief presentation on the modeling results of the remaining Future 5 sensitivities, and the base case and soft constraint runs for Futures 6, 7 and 8. Stakeholders discussed these results and their implications. CRA has completed 64 of the 80 MRN-NEEM cases. Key points from the discussion included:

- F5 – Clean Energy Standard sensitivity run resulted in much less coal, more nuclear and more wind than the F5 base case. CES also achieves more CO2 emission reductions. More off-shore wind and other renewables are built in F5.
- F6 – Every Super Region must meet 30% RPS so more off-shore wind and other renewables (PV, Biomass, LFG, solar) are added; transfers between Super Regions are limited.
- F7 – Nuclear replaces CCS; expanding the pipes under the soft constraint doesn't make a significant difference.
- F8 – Carbon prices result in enough wind to meet RPS; change is primarily in the higher amount of DR & EE
- Nothing counter intuitive emerged given the driving set of assumptions.
- F2 – higher intermittency penetration limit sensitivity doesn't make any difference because the inter-regional transport limits prevent export to load centers so even the regions with the best wind may not reach the 50% penetration limit.
- At the request of an SSC member., CRA agreed to show demand reduction side-by-side with generation in the future

3. Transmission limits hardening (TLH) recommendations for Futures 6, 7 & 8

Tyler Ruthven of the NEEM/Transmission subteam presented the group's recommendations and analysis of the TLH options for Futures 6, 7 and 8. Key discussion points and decisions included:

- **Future 6 – The SSC accepted the sub-team's recommendation** to use the averaging approach to harden the transfer limits for the remaining sensitivities in F6. The SSC had agreed previously that the OL25 case would be the basis for hardening the transfer limits in this Future.
- **Future 7 – The SSC decided to use the baseline infrastructure transfer limits** for the remaining sensitivities in Future 7.
- **Future 8 – The SSC accepted the NGOs' recommendation that OL75 transfer limits, with the averaging approach,** be used for the remaining F8 sensitivities. Although it was noted that more wind would likely be built under OL25, the NGOs thought there was value in using OL75 to be able to compare the expanded RPS at 40% under F8 with earlier OL75 runs.

4. High-Level Transmission Analysis; Phase II Data, Approach and Timeline

Zach Smith of NYISO and Dan Fredrickson of MAPPCOR gave presentations on the high-level transmission costs analysis for Future 2, the data required to specify the Phase II scenarios, and

the revised Phase II approach and timeline. The presentations and supporting materials can be found under this meeting's section of the Meeting Materials page at www.eipconline.com.

- Transmission costs for F2 were shared and it was noted that two updates were made to account for internal upgrades to accommodate SPP to Entergy transfers and PJM to NYISO transfers.
- It was stressed by EIPC that the high-level transmission analysis is a rough cut and cannot simply be added to generation costs to achieve a total cost for each run. Sectors should use the data as they see fit.
- Phase II will involve the creation of a Transmission Options Task Force (TOTF), which will provide a forum for stakeholders to provide input to the PAs conducting the analyses. Each sector should designate at least one, at most two, individuals to take part in the TOTF (with the states allowed at least three, and up to six, designees). The designees should have knowledge of transmission planning, and CEII clearance if possible. Sectors should begin to identify their TOTF representatives as soon as possible and forward the name of their designee and qualifications to The Keystone Center. General qualifications are identified in EIPC's Phase II plan.
- EIPC hopes to develop an approach or rule-of-thumb that can be applied across the board to make decisions on which units will be retired.
- In determining where generation will be located, EIPC explained that the PAs will take the first shot and then take input from the SSC.
- EIPC also clarified that the transmission included in the baseline infrastructure may have to be revisited to eliminate lines that have not been constructed and may be redundant under a particular Future.
- GE MAPS will need emission costs and load profiles in addition to generation characteristics for each Future.
- **Comments on the revised Phase II plan are due to Dave Whiteley by Aug. 8th.**

5. Scenario Selection Objectives and Criteria

Wil Burns of the NGO sector and Ryan Kind of the End Users sector presented the Scenario Task Force's recommendations on the objectives, process and criteria for selecting the scenarios. Key decision items and discussion points included the following:

- The SSC generally agreed that the objectives, process and criteria discussed in the Scenario Task Force's memo and presentation were appropriate. This general agreement does not bind anyone to particular positions or indicate complete consensus on every word in the memo.
- SSC members discussed the bookends concept and began to articulate the broad framework for these bookends.
 - Most sectors were in general agreement that that the bookending approach should yield the following types of scenarios:
 - one BAU scenario OR a High EE/DR/DG/Smart Grid scenario
 - one nationally-implemented clean/green/low-carbon policy scenario

- one regionally-implemented clean/green/low-carbon policy scenario.
 - Sectors discussed the pros and cons of using a BAU scenario vs. a high EE/DR/DG/SG scenario. Key points from that discussion included:
 - BAU: would provide a benchmark for comparing other scenarios; may be a future that is likely to develop; may add diversity by using a higher load growth figure than other scenarios, particularly since EE/DR/DG/SG will likely be involved in the other low-carbon scenarios; however may not yield as much new information as a High EE/DR scenario.
 - High EE/DR/DG/SG: could bring more useful information; will probably show a small transmission build, but with different characteristics and other important impacts that wouldn't show up in a BAU scenario; but the new information might not end up as valuable as a strong comparative BAU case could be.
 - SSC members general agreed that more information was needed before this issue could be decided.
 - Some sectors expressed a preference for bookends defined in terms of the type of transmission build-out they would yield, with one large/long-range/national transmission build-out scenario, one smaller/shorter-range/regional transmission build-out scenario, and a third scenario somewhere in-between or featuring different characteristics. It was acknowledged that these transmission-based scenarios would likely align with the policy-based scenarios discussed above.
- SSC members also discussed the clustering approach. Stan Hadley presented the slides Denis Bergeron had shown to EISPC, related to the clustering approach, particularly transmission-based clustering.
 - Several sectors expressed that variables related to transmission were the most important for the clustering process.
 - Several sectors also expressed that generation mixes, costs, energy flows, and emissions are important clustering variables.
- Other issues raised by SSC members included:
 - The task force and the SSC should think about whether the national and regional scenarios discussed in the bookends approach should be identical in all aspects aside from the national/regional variables, or whether they should vary in additional ways, as well.
 - Some sectors indicated that there should be some variation across the scenarios in terms of load growth – particularly, that there should not be three low load-growth scenarios.
 - The SSC has not yet decided what type of policy to select for the possible clean/green/low-carbon scenarios (carbon price, RPS, clean energy standard, etc.)
- **The second day of the meeting, the SSC endorsed the objective and general approach outlined in the STF's memo.**

6. What does success look like?

David Meyer of DOE asked SSC members to consider and discuss what they view as the outcomes necessary for this project (EIPC) to be viewed as successful, including what are the salient questions this study can shed light on and in what case is EI-wide planning appropriate in the future. Some of the key points from this discussion included the following:

- The process is as important as the product – if a system is established, and there is ongoing interconnection-wide collaboration and consensus decision making, that will be a major marker of success. But the question of how to continue the process without federal funding will pose a challenge.
- This project will be successful if it yields learning in terms of how the transmission planning process currently works and how it could be improved.
- The project should yield insights into the effectiveness of policy tools and their impacts on generation fleet, including assumptions that are critical to the planning process.
- Important insights should be gained from the transmission build-outs related to what the transmission system can/should look like under a variety of perspectives of the future.
- If the products (both data and tools) of this initial study are used in future planning, that would be a marker of success. Need to ensure that the data generated is good and trustworthy.
- The project has already proven successful at bringing new stakeholders into the planning process, including Canada.
- Study process should be well-documented so the next time will be better and more efficient.
- Learning to use a common vocabulary would be part of the success.

7. MWG Updates on EE/DR, Intermittency and Nuclear Uprate Costs

Erin Hogan of the Modeling Work Group gave a brief verbal update on the Modeling Work Group's efforts to provide post-processing cost estimates as previously directed by the SSC.

- The SSC agreed that the MWG may also develop integration cost information for generation types other than wind, as appropriate, for the SSC's review, particularly if the same sources used for determining wind/intermittent generation integration costs also indicate the integration costs of other generation types.

8. Outline of Phase I report

Jim Busbin of EIPC provided a brief presentation on the outline of the Phase I report and the timeline for completion of this report.

- SSC members with specific input on the report or outline at this stage should submit it via e-mail to Dave Whiteley by August 8, 2011. There will be three additional opportunities for input as well.

9. Update on RUWG lessons learned

Wil Burns of the Roll-up Work Group discussed the progress the RUWG has made on its “lessons learned” document. The items listed in “lessons learned” document will be considered for inclusion in the Phase I report. He also pointed out some ongoing discussions regarding the MWG and other groups compiling “lessons learned” documents for possible inclusion in the Phase I report, which was not met by any objections from the SSC.

10. Next Steps

- The Scenario Task Force will schedule its August calls and an early-September in-person meeting, in order to develop narratives for the three recommended scenarios before the September SSC meeting.
- Stan Hadley will hold a call with stakeholders interested in providing input on the clustering analysis approach. Keystone will send a Doodle poll and schedule that call early next week.
- SSC members and other stakeholders with input on the current draft and outline of the Phase I report should submit it to Dave Whiteley by August 8, 2011.
- Keystone will send an e-mail to SSC members requesting that they submit the names of their sector designee(s) to the TOTF.
- Keystone will send a Doodle poll for SSC members to indicate their availability for a possible in-person meeting in early November.

NEXT MEETING: September 26-27, 2011; Embassy Suites at the Philadelphia Airport

Attendance Report, SSC Meeting, July 28-29, 2011

Name	Organization/Company	Sector	Role
Rob Sinclair	OPA	Canadian Provincial Representatives	SSC Member
Brenda Harris	Occidental Chemical Company	End Users	SSC Member
Ryan Kind	Missouri Public Counsel	End Users	SSC Member
Sonny Popowsky	PA OCA	End Users	SSC Member
Steve Gaw	Wind Coalition	Generation Owners and Developers	SSC Member
Michael Goggin	AWEA	Generation Owners and Developers	SSC Member
Mark Volpe	Dynergy	Generation Owners and Developers	SSC Member
Mark Brownstein	Environmental Defense Fund	NGOs	SSC Member
Andy Oliver	Land Trust Alliance	NGOs	SSC Member
Wil Burns	NGOs	NGOs (alternate for Beth Soholt)	SSC Member
Herb Healy	EnerNOC, Inc	Other Suppliers	SSC Member
Chris Lyons	Constellation Energy	Other Suppliers	SSC Member
Dennis Sobieski	Hess Corp.	Other Suppliers	SSC Member
Rob Berntsen	Iowa Utilities Board	State Representatives	SSC Member
David Boyd	Minnesota Public Utilities Commission	State Representatives	SSC Member
Garry Brown	NYS Public Service Commission	State Representatives	SSC Member
Edward Finley	NCUC	State Representatives	SSC Member
Elizabeth Fleming	Public Service Commission of SC	State Representatives	SSC Member
Kevin Gunn	MO Public Service Commission	State Representatives	SSC Member
Paul Malone	NPPD	TDU/Public Power	SSC Member
Tim Noeldner	WPPI Energy	TDU/Public Power	SSC Member
Maryam Sharif	New York Power Authority	TDU/Public Power	SSC Member
Will Kaul	Great River Energy	Transmission Owners and Developers	SSC Member
Stuart Nachmias	Con Edison	Transmission Owners and Developers	SSC Member
Paul Napoli	Managing Director - PSE&G	Transmission Owners and Developers	SSC member
Garrett Bissell	Couch White, LLP	End Users	Table Representative
Erin Hogan	NYSERDA	End Users	Table Representative
Terry Black	NGO FERC Project	NGOs	Table Representative
Keith Daniel	Georgia Transmission Corp.	TDU/Public Power	Table Representative
Diane Huis	NCEMC	TDU/Public Power	Table Representative
Paul McCurley	NRECA	TDU/Public Power	Table Representative

David Boguslawski	Northeast Utilities	Transmission Owners and Developers	Table Representative
Lloyd Linke	Western Area Power Administration	Transmission Owners and Developers	Table Representative
Pedro Modia	FPL	Transmission Owners and Developers	Table Representative
Steven Naumann	Exelon	Transmission Owners and Developers	Table Representative
Mary Ellen	National Grid	Transmission Owners and Developers	Table Representative
Mike Gregerson	Great Plains Institute	NGOs	Observer
Amy Hansen	New Jersey Conservation Foundation	NGOs	Observer
Jeff Risley	Climate and Energy Project	NGOs	Observer
Erin Stojan Ruccolo	Fresh Energy	NGOs	Observer
Doug Bowman	Southwest Power Pool	Other	Observer
John Buechler	NYISO	Other	Observer
Jim Busbin	Southern Company Transmission	Other	Observer
Lot Cooke	Department of Energy	Other	Observer
Alicia Dalton-Tingler	Department of Energy	Other	Observer
Rob Danielson	Town Of Stark, Vernon County, WI	Other	Observer
Stanley Doe	ISO New England	Other	Observer
Mason Emmett	FERC	Other	Observer
Dan Fredrickson	MAPPCOR	Other	Observer
Don Gates	ISO New England	Other	Observer
Stan Hadley	Oak Ridge National Lab	Other	Observer
Jack Halpern	Louis Berger Group	Other	Observer
Chuck Liebold	PJM	Other	Observer
Eric Runge	Day Pitney LLP for NEPOOL	Other	Observer
Tom Schneider	EL - National Renewable Energy Laboratory	Other	Observer
Nano Sierra	FERC	Other	Observer
John Stovall	Oak Ridge National Laboratory	Other	Observer
Jeffrey W. Bentz	NESCOE	State Representatives	Observer
Samrat Datta	Entergy Services, Inc	Transmission Owners and Developers	Observer
Flora Flygt	American Transmission Company	Transmission Owners and Developers	Observer
Gloria Godson	Pepco Holdings Inc.	Transmission Owners and Developers	Observer
Chris Hagman	American Transmission Company	Transmission Owners and Developers	Observer

Robert Henry	First Energy	Transmission Owners and Developers	Observer
Barry Huddleston	Clean Line Energy Partners	Transmission Owners and Developers	Observer
Jeff McKinney	NYSEG and RG&E	Transmission Owners and Developers	Observer
Nina McLaurin	Progress Energy	Transmission Owners and Developers	Observer
Alan Myers	ITC Great Plains	Transmission Owners and Developers	Observer
Joseph Payne	Entergy Services, Inc	Transmission Owners and Developers	Observer
Tyler Ruthven	National Grid	Transmission Owners and Developers	Observer
Gregory Smith	PPL	Transmission Owners and Developers	Observer

Attending via Webinar (23 total)

Name	Organization/ Company
Dorothy Barnett	Climate + Energy Project
Jim Calore	PSE&G
Rob Danielson	
Danny Dees	
Bob Fagan	
Dan Hartman	
Mark Hershfield	
Steve Kaminski	New Hampshire Electric Co-op
Ken Lotterhos	
Doug Nazarian	Maryland Public Service Commission
Eric Runge	Day Pitney for NEPOOL
Zach Smith	NYISO
Raja Sundararajan	
Leonard Tillman	
Beverly Vaillancourt	
Greg Watkins	
Gary Will	
John Zarzycki	NJBPU
Samuel Zewdie	