

## CRA Modeling Workshop November 8-9, 2010

Baltimore, MD Summary

#### **Meeting Objectives:**

- Understand MRN-NEEM model data inputs
- Using an indicative Business-As-Usual (BAU) Future, determine model inputs
- Describe EIPC approach to transmission in NEEM analysis

Attendees: list of attendees is attached at the end of the summary.

#### **Recording Day 1:**

https://eipconline.webex.com/eipconline/lsr.php?AT=pb&SP=EC&rID=1505757&rKey=0ce4942254d8d48d Recording Day 2:

https://eipconline.webex.com/eipconline/lsr.php?AT=pb&SP=EC&rID=1511297&rKey=c5f028555f8deffd The meeting agenda and presentations are available in their entirety at <a href="https://www.eipconline.com/Calendar">www.eipconline.com/Calendar</a>.

This meeting summary highlights WG key discussion items and next steps.

#### 1. Overview of Project Task 5 (CRA)

Some key points were highlighted in the Q&A session following:

- A sensitivity uses the same main structural decisions and making a simple change to an
  input, e.g. fuel price, demand forecast, but not something more complex like rebuilding the
  NEEM regions.
- Voltage will not be considered in the pipe-and-bubble model, but it may for the interregional transfer limits.
- NEEM regions will be based on existing transmission topography, taking into account existing regional interfaces, and incorporating stakeholder input.

#### 2. Transmission approach in NEEM analysis (David Whiteley)

- SSC may choose to use a sensitivity of each Future to make a one-time adjustment to transfer limits between regions.
- Transfer limits can be expanded or reduced by looking at the outcome from the first MRN-NEEM run using baseline infrastructure limits, identifying binding limits, average flow, shadow pricing, etc.
- They would be expanded or reduced qualitatively and the results will reveal at what level it was constrained, but will not provide a quantitative or MW measure.
- Dispatch/commitment hurdle rates are not distinguished in NEEM

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• An optional "Step 4" involves an adder for within-bubble transmission effect and cost analysis.

### 3. Overview of MRN-NEEM Model inputs (CRA)

Details of the model inputs was provided in the background document "MRN-NEEM Modeling Assumptions and Data Sources" <a href="http://eipconline.com/uploads/MRN-NEEM">http://eipconline.com/uploads/MRN-NEEM</a> Draft 10-26-10.pdf Discussion of the model inputs covered the following:

- CRA will use specified inputs in the above report unless otherwise directed by SSC
- Default data includes extensive use of Annual Energy Outlook (AEO) data
- Other information provided by Planning Authorities (PAs)
- Some inputs would be changed over time within the equilibrium model's calculations
- While NEEM has much of the Canadian electrical system, MRN does not incorporate the Canadian economy, and EIPC is discussing how to best address this
- Current hydro pumped storage is included, but not new pumped storage
- Modeling energy efficiency (EE) as a resource could be done but would be first time and involve very specific inputs
- Additional recent DR information may be added to the model inputs
- Nuclear retirements other than a 60-year lifetime would have to be specified
- Working on modeling the EPA Transport Rule

#### 4. Sample Output Reports (CRA)

- CRA envisions a common format for the report outputs.
- Some of the issues discussed involved:
  - Modeling a carbon cap vs. a carbon price
  - Transmission costs and shadow pricing
  - The need for ancillary services will not be identified in NEEM model
  - Length of time necessary to do both simple and complex model runs
  - Length of time necessary to do both the first case (e.g. BAU) and subsequent ones
  - The value of a copper-sheet model

#### 5. Technical Session on the MRN-NEEM model (CRA)

The presentation highlighted several in-depth examples, including scenarios of PHEV and remote wind resources. Discussion covered:

- consumer behavior
- effect of large transmission cost on elasticity
- applying a carbon cap
- substitution of imports
- varying the type of technology used for an RPS
- reserve margin assumptions

#### **Next Steps:**

• The next Joint MWG & SPWG meeting will follow the SSC meeting on December 14-15.

# In-Person Attendance at Joint Work Group Meeting November 8-9, 2010

First Name	Last Name	Organization
Syed	Ahmad	FERC
Deidre	Altobell	Con Edison
Diane	Barney	NY State Dept of Public Service
Denis	Bergeron	Maine Public Utilities Commission
Joe	Bryson	US EPA
John	Buechler	NYISO
Wil	Burns	NGOs
Gregory	Carmean	MD PSC
Hisham	Choueiki	Ohio PUC
Steve	Chui	Ontario Power Authority
Alicia	Dalton-Tingler	DOE
Emily	Fisher	Lawrence Berkeley National Lab
Flora	Flygt	American Transmission Company
Robert	Gaw	Wind Coalition
Don	Gilbert	JEA
Michael	Goggin	AWEA
Kevin	Gunn	Missouri Public Service Commission
Chris	Hagman	American Transmission Company
Dan	Hartman	NWKREC
Erin	Hogan	NYSERDA
Ezra	Hausman	Synapse Energy
Alice	Jackson	Occidental Chemical Corporation
Randell	Johnson	Northeast Utilities
Doug	Kallesen	NPPD
John	Kerry	Maine Governor's Office of Energy
0 0 1 1 1		Independence & Security
Esam	Khadr	PSE&G
Ryan	Kind	Missouri Public Counsel
Adriana	Kocornik-Mina	Department of Energy
Mark	Kresowik	Sierra Club
Matt	Lacey	Great River Energy
William	Lamanna	NYISO
Sandra	Levine	Conservation Law Foundation
Michael	Li	U.S. Department of Energy
King	Look	Con Edison
John	Lucas	Southern Company
Paul	McCurley	NRECA
David	Meyer	USDOE
Scott	Morris	Alabama PSC
Beon	14101110	

Tim	Noeldner	WPPI Energy
Andy	Oliver	Land Trust Alliance
James	Orosz	Con Edison
Mary Ellen	Paravalos	National Grid
Bob	Pauley	EISPC
Sonny	Popowsky	PA Office of Consumer Advocate
Maryam	Sharif	NY Power Authority
Jesus	Sierra	FERC
(Nano)		
Robert	Stein	Hydro Quebec
Gabe	Stern	CMEEC
Samir	Succar	NRDC
Ellen	Vancko	Union of Concerned Scientists
Robert	Weishaar	McNees Wallace & Nurick LLC
Marya	White	EISPC
David	Whiteley	Whiteley BPS Planning Ventures
Chuck	Liebold	PJM
Jameson T.	Smith	MidWest ISO
Alex	Rudkevich	Charles River Associates
Ralph	Luciani	Charles River Associates
Chris	Russo	Charles River Associates
Barclay	Gibbs	Charles River Associates
Sugandha	Tuladhar	Charles River Associates
Michael	Kline	Charles River Associates
Chuck	Trabandt	Charles River Associates
Craig	Glazer	PJM

## **Webinar Attendees**

First Name	Last Name	Organization
Garrett	Bissell	Couch White, LLP
Terry	Black	Project for a Sustainable FERC
John	Buechler	NYISO
Pradip	Chattopadhyay	New Hampshire PUC
Alicia	Dalton-Tingler	DOE/NETL
Benjamin	D'Antonio	Massachusetts Department of Public
_		Utilities
Danny	Dees	MEAG Power
Andrew	Dotterweich	Consumers Energy
Jason	Fordney	Platts
Al	Freeman	Michigan PSC
Don	Gilbert	JEA
Stanton	Hadley	Oak Ridge National Lab
Keith	Harrison	Southern Company

Dan	Hartman	NWKREC
lynn	hecker	Midwest ISO
Mark	Hershfield	FERC
Heather	Hunt	New England States Committee on
		Electricity
Seth	Kaplan	Conservation Law Foundation
Matt	Lacey	Great River Energy
Jason	Marshall	Massachusetts Dept. of Public Utilities
Jeffrey	McKinney	NYSEG and RG&E
Nina	McLaurin	Progress Energy
Jack	Muse	FERC
Alan	Myers	ITC Great Plains
Ming	Ni	Midwest ISO
Steve	Offenhauser	
Martin	Paszek	Consolidated Edison of NY, Inc.
Steve	Rose	
Erin Stojan	Ruccolo	
Eric	Runge	Day Pitney LLP for NEPOOL
Tyler	Ruthven	National Grid
George	Smith	George Smith Consulting
Michael	Steckelberg	Great River Energy
Samir	Succar	NRDC
Leonard	Tillman	
Jessica	Van Deusen	
Julie	Voeck	Next Energy Resources
Steve	Watry	MAPPCOR
Clay	Young	SCE&G
Mike	Zajmalowski	Ontario Power Authority
Zheng	Zhou	Ontario Power Authority