SSC Meeting Summary
March 28-29, 2011
Chicago, IL

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

Meeting Objectives:

- Explore the results of the BAU and first 2 Sensitivities
- Understand and finalize model inputs for all futures
- Understand plans for high-level transmission analysis

Action Items:

- **Finalize model inputs for all Futures & Sensitivities**

125 individuals were in attendance (93 in person, 32 via webinar); 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.

A. Initial BAU Results

Ralph Luciani from CRA briefly presented key information related to the results of the initial BAU run and the first two BAU sensitivities, and SSC members discussed the implications of the results. He observed that:

- The MRN-NEEM model has complete foresight and will seek to optimize the resource mix to achieve the lowest cost solution under the assumptions provided.
- Most of the changes in the resource mix in the first 5 years are the result of "forced builds" under the Baseline Infrastructure specified by the SSC.
- Beyond that, generation is added in large part to meet State RPS requirements and load growth, and replace retired generation.
- There were significant coal plant retirements probably due to the combination of low gas prices, new environmental regulations, and lower load growth.
- The changes in the transfer limits under Sensitivities 1 and 2 did not result in significant changes in the resource mix.

SSC members raised the following key issues:

1. **High Level of Coal Retirements:** Several SSC members noted that the number of coal retirements in the earlier years of the study period seemed higher than what is believed to be likely.
    a. **Modeling of EPA rules:** Several SSC members indicated that a key driver of coal retirements is the way EPA rules were modeled in the BAU. SSC members noted that new information recently released by EPA indicates that these rules may have lower costs and less extensive impact on the electricity sector than currently modeled. SSC members asked the MWG to work with the EPA and with CRA to find a way to model these rules more accurately in the subsequent Futures and sensitivities, in light of this new information.
    b. **Natural gas costs**: Many SSC members indicated that the natural gas costs used in the model may also drive the coal retirements. Many agreed that this reduced the need for "low natural gas price" sensitivities in most of the Futures. Some members suggested

the need for one or more "extra high natural gas price" sensitivities. (See Section C for related sensitivities proposals.)

2. **High level of wind generation in Nebraska:** Several SSC members indicated that the amount of new wind generation located in Nebraska seemed higher than is likely to occur. Members discussed possible causes of this result, and whether certain assumptions should be altered in future model runs, but no decisions were made related to this issue.
3. **Significant expansion of NG combined cycle units in MISO_WUMS region:** The amount and concentration of NGCC generation built over the study period in this region was considered by some of the SSC Members to be unlikely. According to CRA, this result could be modified by adjusting the capital cost multiplier for the region. No decision was made.

B. SSC decisions on MWG Consensus items

Erin Hogan, Samir Succar, Randell Johnson, Tyler Ruthven and Stan Hadley from the Modeling Work Group gave an overview of the MWG's consensus recommendations related to the modeling inputs for each Future.

All of the MWG consensus recommendations described on pages 1-17 of the Modeling Word Group MRN-NEEM Model Input Recommendations document (Appendix A) were adopted by the SSC, with the following exceptions/changes:

1. **Heat rate efficiency increase (Future 3):** This will also be applied to Future 2, for consistency.
2. **CCS Capacity addition limit increase in Future 2 will apply to Future 3 for consistency**
3. **5% increased cost of capital for non-renewables (Future 4):** This proposal was rejected by the SSC.
4. **EPA regulations (Futures 2-8):** The SSC agreed to have the Modeling Work Group develop new inputs to represent the newly released EPA rules (in conjunction with CRA and the EPA), to be used in subsequent Futures and sensitivities.
5. **Future 4 Base Case**: Eliminate the description "and dynamic pricing was made the default tariff."
6. **Sensitivities (Futures 1-8):** The SSC made several new eliminations, additions and adjustments to the lists of sensitivities for each Future. These decisions pertaining to the sensitivities are summarized in Section C.

C. SSC decisions on MWG Non-consensus Items

Members of the MWG presented recommended options for the SSC to consider, related to the decision points on which the WG had not reached consensus. These items, and the SSC's decisions, are listed below:

1. Transfer Limits to Be Used for BAU Sensitivities 3-15

The SSC agreed to use **Option A: Fixed transfer limits from the baseline infrastructure**.

2. Hydro Potential (Futures 2-8)

The SSC agreed to use **50% of the Option A (NPD from ORNL study) hydro potential.**

3. Transmission Sensitivities (Futures 2-8)

The SSC agreed to the following specifications for the soft constraints approach used in the transfer limits sensitivities in Futures 2-8:

- **Future 1 (BAU)**
  - Use Baseline Infrastructure to define transfer limits in all remaining BAU Sensitivities (i.e. no changes to pipe sizes in Base Case for BAU sensitivities)
- **Futures 2, 5 & 8** (those with 2 transmission sensitivities):
  - Set overload charges at **75%** of weighted average shadow price for S1 in each Future
  - Set overload charges at **25%** of weighted average shadow price for S2 in each Future
- **Futures 3, 4, 6 & 7** (those with 1 transmission sensitivity):

- **F3, F6:** Set overload charges at **25%** of weighted average shadow price within super-regions
- **F4: Eliminate transmission sensitivity**
- **F7:** Set overload charges at **25%** of weighted average shadow prices (between NEEM regions)

4. Higher PHEV Levels Sensitivities (Futures 2-8)

The SSC agreed to adopt **Option A: 3x, 6x, 9x, 10x multiplier** on BAU base case levels for years 2015, 2020, 2025 and 2030, respectively, for consistency.

5. DC Line Modeling (Futures 2, 5 and 8)

The SSC agreed to **Option A**: **No explicit modeling of DC lines in Phase I of the EIPC process.** The decision on this item is related to the decision reached on Friction Charges (See Item 6) and Wind/Solar Penetration Limits/Intermittency Regions/Capacity Values (See item 12).

6. Friction Charges (Futures 3 and 6)

The SSC adopted **Option B**: **Do not eliminate friction charges within super-regions in the base case** -- keep base-run friction charges in Futures 3 and 6 identical to friction charges in Futures 2 and 5, respectively.

- The SSC also agreed to **reduce friction charges by 50% in a sensitivity** on each of these Futures.
- They did not decide whether this would be an additional sensitivity, or whether the reduced friction charges would be combined with the 25%-level transmission sensitivities.
- See Item 12 for more information on this and other related decisions.

7. Carbon Tax Revenues (Future 3)

The SSC adopted **Option A**: **Carbon Tax revenues recycled only to regional economy.**

8. Offshore Wind Incentive (Future 4)

The SSC adopted **Option A: No incentive for offshore wind** in Future 4.

- The SSC also agreed to add 2 sensitivities (one to Future 5 and one to Future 6) forcing in a particular amount of offshore wind. (Amount TBD.)

9. RPS and Canadian Resources (Futures 5, 6 and 8)

The SSC agreed that **Canadian load should be covered by national RPS and all Canadian qualifying resources can be utilized to meet RPS obligations, with the exception of Ontario, which is not covered by the RPS and is prohibited from trading RECs .**

10. Super-region RPS Alternative Compliance Payment (Future 6)

The SSC selected **Option B: Set ACP for all super-regions at $200/MWh.**

11. Increased Deployment of Flexible Resources (DR, Storage) (Future 5 Sensitivity 9, and Future 6 Sensitivity 8)

The SSC adopted **Option A: Increase deployment of flexible resources by increasing the variable resource penetration limits by 15 percentage points** relative to the base value in these Futures.

- The SSC acknowledged that, given the 35% penetration limit selected as the base value for Futures 5 and 6, the added 15 percentage points would bring the variable resource penetration limit to 50% in these two sensitivities (See Item 12).

12. Wind/Solar Penetration Limits, Intermittency Regions, Capacity Values (Futures 2, 3, 5, 6 & 8)

The SSC agreed to the following specifications on these issues:

- **Futures 2, 5 & 8 – National Implementation Futures**
  - **a. Four intermittency regions**
  - **b. Reserve margin contribution same as BAU**
  - **c. 35% variable resource penetration limits**
    - i. Incremental operation costs of penetration beyond 25% will be estimated in post-processing.
  - **d. Friction charges stay same in base run, reduced by 50% in a sensitivity**
    - i. It was suggested that the reduced friction charges sensitivity may be combined with the 25% transmission sensitivity, but this was still under discussion, and will be finalized at a later date.
    - ii. NOTE: The SSC also agreed to sensitivities showing a 50% reduction in hurdle rates in Futures 2, 5 & 8 (See Appendix B)
  - e. The SSC mainly discussed these recommendations within the context of Futures 2 and 5, but because the MWG recommended that 2, 5 & 8 be treated the same, these specifications are assumed to apply to Future 8 as well.

- **Futures 3 & 6 – Regional Implementation Futures**
  - **a. 7 Super-regions (PJM split into 2)**
  - **b. 35% variable resource penetration limits**
    - i. Incremental operation costs of penetration beyond 25% will be estimated in post-processing.
  - **c. Reserve margin contribution same as BAU**
  - **d. Friction charges stay same in base run, reduced by 50% in a sensitivity**
    - i. It was suggested that the reduced friction charges sensitivity may be combined with the 25% transmission sensitivity, but this was still under discussion, and will be finalized at a later date.

13. Increase RPS to 40% or Lower Gas Prices (Future 8 Sensitivity 4)

The SSC selected, for Future 8, Sensitivity 4, **Option A: Increase RPS to 40% by 2030**.

D. Sensitivities

Through the course of SSC discussion, a number of decisions were made regarding sensitivities in Futures 1-8. The updated sensitivities index, representing the SSC's decisions and proposals from this meeting, can be found in Appendix B. Key items include:

- The SSC eliminated/replaced 15 previously-approved sensitivities.
- The SSC approved 14 new sensitivities.
- There are currently 69 approved sensitivities, with three available "slots" remaining.
- There are 5 additional proposed sensitivities that have not yet been approved.

E. Remaining Questions and Issues

As a result of the decisions made, there are several items that need follow-up work to clarify or specify related modeling inputs. These items include:

1. **Modeling new EPA rules in remaining BAU sensitivities** (and possibly remaining Futures) – the MWG will work with the EPA and CRA to develop a proposal for modeling the new rules. The SSC

will approve data and the decision-making process related to how this will be used in other Futures during a follow-up call (date TBD).

2. **Proposed adjustments related to other BAU concerns** (reserve margins, wind in NE, MISO_WUMS CC capacity additions, etc.) should be raised during the follow-up call with input from the MWG and CRA.
3. **Amount, distribution and timing of forced off-shore wind in new sensitivities** – the MWG will develop a proposal for SSC approval. Some SSC members expressed an interest in understanding the generation cost implications also.
4. **Method for translating soft constraints into fixed transfer limits** for possible use in Future 2-8 – the MWG will continue working on a proposal for SSC approval.
5. **How to apply 50% reduction in ORNL/DOE Hydro Potential Assessment** – MWG will develop a proposal for SSC approval.
6. **Base case assumption on DG for Future 4**– the MWG will develop a recommendation for SSC approval.
7. **How to structure reduced friction rates sensitivities in Futures 2, 3, 5, 6 & 8 –** SSC members must decide whether these should be combined with the 25% transmission sensitivities, or run as new, separate sensitivities (and, if new sensitivities, which other sensitivities will be eliminated to accommodate this decision).
8. **Sensitivities still under discussion –** SSC members must determine whether the following sensitivities will be approved, and, if necessary, which additional sensitivity/ies will be eliminated in order to accommodate this decision:
    - Lower wind capital costs (2 sensitivities requested)
    - Extra high natural gas prices (2+ sensitivities requested)
    - Reserve margin adjustment to BAU and other adjustments to BAU
    - Confirm whether to retain low gas price sensitivity in Future 4
    - Determine the order of the BAU sensitivities to be run by CRA
9. **Costs used in SMR sensitivity** – EISPC must develop proposal for SSC approval.

F. Next Steps

- Keystone will poll for times for the follow-up call.
- The next in-person meeting will take place May 18-19 in Charlotte, NC. Keystone will send logistics and registration information shortly.

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

Name	*Organization*	*Sector*	*Role*
Roy Thilly		**Chair of SSC, not a voting member**	
Rob Sinclair	Ontario Power Authority	Canada	SSC Member (Alternate)
Alice Jackson	Occidental Chemical Corporation	End Users	SSC Member
Ryan Kind	Missouri Public Counsel	End Users	SSC Member
Sonny Popowsky	PA Office of Consumer Advocate	End Users	SSC Member
David Meyer	US Dept of Energy	Ex-Officio	SSC Member
Steve Gaw	The Wind Coalition	Generation Owners and Developers	SSC Member
Michael Goggin	AWEA	Generation Owners and Developers	SSC Member
Mark Volpe	Dynegy	Generation Owners and Developers	SSC Member
Mark Brownstein	Environmental Defense Fund	NGOs	SSC Member
Andy Oliver	Land Trust Alliance	NGOs	SSC Member
Beth Soholt	Wind on the Wires	NGOs	SSC Member
Herb Healy	EnerNOC, Inc	Other Suppliers	SSC Member
Chris Lyons	Constellation Energy	Other Suppliers	SSC Member
Lauren Azar	PSCW	State Representatives	SSC Member
Rob Berntsen	Iowa Utilities Board	State Representatives	SSC Member
Garry Brown	NYS Public Service Commission	State Representatives	SSC Member
Edward Finley	NCUC	State Representatives	SSC Member
Lib Fleming	PSC of SC, EISPC	State Representatives	SSC Member
Doug Nazarian	Maryland PSC	State Representatives	SSC Member
James Volz	Vermont Public Service Board	State Representatives	SSC Member
Kevin Gunn	**Missouri Public Service Commission**	**State Representatives Vice Chair of SSC**	SSC Member
Denis Bergeron	Maine Public Utilities Commission	State Representatives *Alternate	SSC Member (Alternate)
Marya White	EISPC	State Representatives *Alternate	SSC Member (Alternate)
Paul Malone	NPPD	TDU/Public Power	SSC Member
Tim Noeldner	WPPI Energy	TDU/Public Power	SSC Member
Maryam Sharif	NYPA	TDU/Public Power	SSC Member
Will Kaul	Great River Energy	Transmission Owners and Developers	SSC Member
Tamara Linde	PSEG	Transmission Owners and Developers	SSC Member
Stuart Nachmias	ConEdison	Transmission Owners and Developers	SSC Member
Garrett Bissell	Couch White, LLP	End Users	Table Representative
Erin Hogan	NYSERDA	End Users	Table Representative
Frederick Plett	Massachusetts Attorney-	End Users	Table Representative

	General		
Jim Howell	Southern Power Company	Generation Owners and Developers	Table Representative
John Moore	ELPC	NGO	Table Representative
Wil Burns	Energy Conservation Council	NGOs	Table Representative
Bob Fagan	Synapse Energy Economics - NGO Consultant	NGOs	Table Representative
Katherine Kennedy	NRDC	NGOs	Table Representative
Erin Stojan Ruccolo	Fresh Energy	NGOs	Table Representative
Samir Succar	NRDC	NGOs	Table Representative
William White	Energy Future Coalition	NGOs	Table Representative
Robert Stein	Hydro Quebec	Other Suppliers	Table Representative
Keith Daniel	Georgia Transmission Corp.	TDU/Public Power	Table Representative
Paul McCurley	NRECA	TDU/Public Power	Table Representative
Barry Huddleston	Clean Line Energy Partners	Transmission Owners and Developers	Table Representative
Lloyd Linke	Western Area Power Administration	Transmission Owners and Developers	Table Representative
Jeffrey McKinney	NYSEG and RG&E	Transmission Owners and Developers	Table Representative
Mary Ellen Paravalos	National Grid	Transmission Owners and Developers	Table Representative
Raja Sundararajan	AEP	Transmission Owners and Developers	Table Representative
Paul Vaitkus	NSTAR Electric & Gas	Transmission Owners and Developers	Table Representative
Clay Young	SCE&G	Transmission Owners and Developers	Table Representative
Allison Clements	FERC Project	NGO	Observer
Mike Gregerson	MGA	NGOs	Observer
Amy Hansen	New Jersey Conservation Foundation	NGOs	Observer
Johnathan Hladik	Center for Rural Affairs	NGOs	Observer
Jeff Risley	Climate and Energy Project	NGOs	Observer
David Andrejcak	FERC	Other	Observer
Jeremy Bennett	Southern Company	Other	Observer
John Buechler	NYISO	Other	Observer
Jim Busbin	Southern Company	Other	Observer
Lot Cooke	Department of Energy	Other	Observer
Alicia Dalton-Tingler	DOE	Other	Observer
Mason Emnett	Federal Energy Regulatory Commission	Other	Observer
Joseph Eto	LBNL	Other	Observer
Dan Fredrickson	MAPPCOR	Other	Observer
Donald Gates	ISO New England	Other	Observer
Ian Grant	TVA	Other	Observer
Stanton Hadley	Oak Ridge National Lab	Other	Observer
Ralph Luciani	CRA	Other	Observer
Larry Mansueti	U.S. Department of Energy	Other	Observer
Alex Rudkevich	Charles River Associates	Other	Observer

Eric Runge	Day Pitney for NEPOOL	Other	Observer
Tom Schneider	NREL - National Renewable Energy Laboratory	Other	Observer
Matt Schuerger	Energy Systems Consulting Services	Other	Observer
David Till	TVA	Other	Observer
Charles Trabandt	Charles River Associates	Other	Observer
Jianhui Wang	Argonne National Laboratory	Other	Observer
Jeffrey Webb	Midwest ISO	Other	Observer
David Whiteley	EIPC	Other	Observer
Jeff Bentz	NESCOE	State Representatives	Observer
Bob Pauley	EISPC	State Representatives	Observer
Gregory Carmean	MD PSC	State Representatives	Observer
Flora Flygt	American Transmission Company	Transmission Owners and Developers	Observer
Randell Johnson	Northeast Utilities	Transmission Owners and Developers	Observer
Lisa Krizenoskas	PPL Electric Utilities	Transmission Owners and Developers	Observer
King Look	Con Edison	Transmission Owners and Developers	Observer
Nina McLaurin	Progress Energy	Transmission Owners and Developers	Observer
Steven Naumann	Exelon	Transmission Owners and Developers	Observer
Tyler Ruthven	National Grid	Transmission Owners and Developers	Observer
Caitlin Connelly	The Keystone Center	Facilitators	N/A
Eileen Miller	The Keystone Center	Facilitators	N/A
Catherine Morris	The Keystone Center	Facilitators	N/A
Margaret Pinard	The Keystone Center	Facilitators	N/A

Attending via Webinar

Tami Anderson	MAPPCOR
Diane Barney	New York State Dept of Public Svc
Terry Black	NRDC
Joe Bryson	EPA
James Calore	PSE&G
Jay Caspary	Southwest Power Pool
Hisham Choueiki	Ohio PSC
Stacy Dimou	Oxbow-Sherman
Andrew Dotterwich	Consumers Energy
Ed Ernst	Duke Energy
Emily Fisher	LBNL
Jason Fordney	Platts
Al Freeman	Michigan Public Service Commission
Stuart Hansen	
Jeff Hart	
Dan Hartman	NWKREC

Joann Henry	We Energies
Mark Hershfield	
Diane Huis	NCEMC
Heather Hunt	nescoe
David Jacobson	Manitoba Hydro
Matt Lacey	GRE
Ken Lotterhos	LIPA
Marty Mennes	FPL
Tsion Messick	Pepco Holdings, Inc.
Chris Plante	
Leonard Tillman	
Jessica Van Deusen	
Sandra Waldstein	
Greg Watkins	
Steve Watry	
Keith Yocum	LGE/KU

List of Approved Sensitivities as of 3.29.11 (69 total)

Run No.	Future	Sens.	Description of sensitivities (newly-added sensitivities highlighted in blue)	Sensitivities eliminated/replaced 3.29.11 (15 total)
Future 1: Business As Usual				
1	1	1	Revised transfer capability -- overload charges at 75% of avg shadow prices	F1S12. ERC #4 -- delay implementation of new EPA regs by 10 years
2	1	2	Transmission Sensitivity #1.2 -- Overload charges at 25% of avg shadow prices	F1S14. FM #2 -- FM #1 PLUS $4.00 gas
3	1	3	High load growth	
4	1	4	Low load growth	
5	1	5	High gas prices	
6	1	6	Increase state EE/DR levels and RPS reqs by 5 percentage points each	
7	1	7	Higher PHEV levels	
8	1	8	Decreased renewable resources capital costs	
9	1	9	Environmental Regulatory Curtailment (ERC) #1 - Delay implementation of new non-carbon EPA regs beyond period of study	
10	1	10	ERC #2: Reduce existing state RPS by 5% in absolute terms within the timeframe specified by each state's RPS requirement. Reduce EE/DR requirements (in states that have them) by 5 percentage points each by end of study period.	
11	1	11	ERC #3: Less-aggressive implementation of upcoming EPA regs (at ~50% of originally intended impact) by delaying implementation 5 yrs	
12	1	12	Model new information on EPA rules	
13	1	13	FM #1: No policies/regulations continued past current expiration (PTC/ITC, etc.); RPS requirements removed.	
14	1	14	FM #2: FM #1 PLUS high load growth.	
Future 2: Federal Carbon Constraint -- National Implementation				
15	2	1	**Revised transfer capability -- overload charges at 75% of avg shadow prices**	F2S6. Low gas prices
16	2	2	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	
17	2	3	High load growth	
18	2	4	Low load growth	
19	2	5	High gas prices	
20	2	6	50% reduction in hurdle rates	
21	2	7	Higher carbon costs	
22	2	8	Lower carbon costs	
Future 3: Federal Carbon Constraint -- State/Regional Implementation				
23	3	1	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	F3S4. Low gas prices
24	3	2	High load growth	
25	3	3	High gas prices	
26	3	4	Low load growth	
27	3	5	High carbon costs	
28	3	6	Lower carbon costs	
29	3	7	Limited new/upgraded nuclear	
30	3	8	Increased imported Canadian hydro	
Future 4: Aggressive EE/DR/DG/Smart Grid				
31	4	1	High load growth	F4S1. Revised transfer capability
32	4	2	High gas prices	F4S4. Mid-range costs for DR/EE etc.
33	4	3	Higher PHEV levels	F4S7. Increased economic activity
34	4	4	Higher PHEV levels with modified load shape (increasing peak)	
35	4	5	**Low gas prices (keep?)**	
36	4	6	Additional 1% mandated energy consumption reductions & comparable increase in DR	

Future 5: National RPS -- Top-Down Implementation				
37	5	1	**Revised transfer capability -- overload charges at 75% of avg shadow prices**	F5S6. Low gas prices
38	5	2	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	F5S9. Increased deployment of flexible resources
39	5	3	High load growth	
40	5	4	Low load growth	
41	5	5	High gas prices	
42	5	6	CES	
43	5	7	Low cost of renewable resources	
44	5	8	High cost of renewable resources	
45	5	9	Increase variable resource penetration limits by 15 percentage points	
46	5	10	Modified load block shapes in recognition of increased PHEV levels	
47	5	11	50% reduction in hurdle rates	
48	5	12	Force in more offshore wind	
Future 6: National RPS -- State/Regional Implementation				
49	6	1	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	F6S5. Low gas prices
50	6	2	High load growth	F6S8. Increased deployment of flexible resources
51	6	3	Low load growth	
52	6	4	High gas prices	
53	6	5	CES	
54	6	6	Low cost of renewable resources	
55	6	7	High cost of renewable resources	
56	6	8	Increase variable resource penetration limits by 15 percentage points	
57	6	9	Increased imported Canadian hydro	
58	6	10	Modified load block shapes in recognition of increased PHEV levels	
59	6	11	Force in more offshore wind	
Future 7: Nuclear Resurgence				
60	7	1	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	F7S4. Low coal prices and low gas prices
61	7	2	Low load growth	F7S6. High uranium and disposal costs, high capital costs
62	7	3	High load growth	F7S7. Force in only those with loan guarantees
63	7	4	EPA Carbon limitations (electric sector only)	
64	7	5	Modular Nuclear (SMR)	
Future 8: Combined Federal Climate and Energy Policy				
65	8	1	**Revised transfer capability -- overload charges at 75% of avg shadow prices**	F8S3. Increased economic activity
66	8	2	**Revised transfer capability -- overload charges at 25% of avg shadow prices**	
67	8	3	Low renewable resources capital costs	
68	8	4	Increase RPS to 40%	
69	8	5	50% reduction in hurdle rates	
Free Sensitivities (3)				
70	**TBD**	**TBD**	**FREE SENSITIVITY**	
71	**TBD**	**TBD**	**FREE SENSITIVITY**	
72	**TBD**	**TBD**	**FREE SENSITIVITY**	
Additional Proposed Sensitivities (5)				
TBD	**1**	**TBD**	**Lower wind capital costs**	
TBD	**2**	**TBD**	**Lower wind capital costs**	
TBD	**TBD**	**TBD**	**Extra high natural gas costs**	
TBD	**TBD**	**TBD**	**Extra high natural gas costs**	
TBD	**1**	**TBD**	**Reserve margins adjusted**	