



# 2005 Access Initiative Sensitivity Prioritization Results

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At the February 14<sup>th</sup> Access meeting, customers and stakeholders were asked to rank a list of suggested sensitivities to be run in PROMOD.

Six replied with rankings: Adams-Columbia, Alliant, MSB, WE, WPPI and WPS. Responses can be found at:

[http://www.atcllc.com/oasis/Customer\\_Notices/Rank\\_Sensitivity\\_totals.pdf](http://www.atcllc.com/oasis/Customer_Notices/Rank_Sensitivity_totals.pdf)



# Highest Ranked Sensitivities

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## 1. High Gas Prices

High gas prices was the most critical sensitivity to examine, according to customers/stakeholders. Four of the six responding entities ranked that as the top priority.

ATC proposes to apply higher gas prices to all units in the model. The increase in gas price will be approximately 20% .

\*ATC seeks feedback on this proposal.



# Highest Ranked Sensitivities

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## **2. Vary energy market prices +/- 30%**

This was the second most highly ranked sensitivity, with two respondents providing a ranking of 2<sup>nd</sup>.

ATC proposes to apply a +/- 30% variation to the fuel costs of all units outside of Wisconsin.

\*ATC seeks feedback on this proposal.



# Highest Ranked Sensitivities

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## **3. Three Wisconsin nuclear units out**

This sensitivity ranked just behind the 2<sup>nd</sup> ranked sensitivity.

The outages of Kewaunee and Point Beach units 1 and 2 will be modeled by turning the units off in the PROMOD runs.



# Highest Ranked Sensitivities

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## Other #1 Rankings

WPPI was the only entity to suggest a new sensitivity: “Wisconsin generator offers are equal to offer cap whenever there is congestion into or within Wisconsin.” WPPI ranked this sensitivity as the most important.

This is difficult to implement as PROMOD does not have a feature to alter bids based on congestion. ATC proposes applying a \$100 adder to the production costs for WI located natural gas units, year round, to mimic generator offers equal to the offer cap during times of congestion into or within WI.

\*ATC seeks feedback on this proposal.



# Highest Ranked Sensitivities

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## Other #1 Rankings

Alliant Energy ranked a major transmission outage as its top sensitivity.

ATC proposes studying a one week outage of ECL-ARP. ATC will limit this study to just one 345kV outage due to the significant effort associated with modifying associated PROMOD files need to perform these runs.

The results will dictate if further analysis is useful, particularly since any justification for a project under N-1-1 conditions will most likely hinge on reliability.

\*ATC seeks feedback on this proposal.



## Other Highly Ranked Sensitivities

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4. Vary (energy&demand) load forecast +/- 5%
5. Potential plant retirements (based on owner feedback)
6. Significant major transmission outage  
(e.g. Eau Claire – Arpin 345 kV OOS 1 week)
7. High generation development in Wisconsin
8. Bound benefit: No ATC system constraints



## Additional PROMOD Questions

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On February 17<sup>th</sup>, Terry Peterson sent questions regarding PROMOD updates, load forecasts and maintenance blackout periods.

WE and WPS responded and provided similar answers:

- Generation updates have either been provided or were not needed.
- There was no strong preference for whether 2001 or 2002 load shape data should be used.
- The 2004 EIA load forecast data is adequate.
- The maintenance scheduling should apply a black-out from the middle of June through August.



# Complete Results

Description	ACEC	Alliant	MSB	WE	WPPI	WPS	Total	Average
Sensitivity: High gas prices	1	3	1	1	3	1	10	1.7
Sensitivity: Vary energy market prices +/- 30%	10	4	7	2	15	2	40	6.7
Sensitivity: 3 WI Nuke out	18	5	2	4	5	NA	34	6.8
Sensitivity: Vary (energy&demand) load forecast +/- 5%	3	10	8	3	14	NA	38	7.6
Sensitivity: Potential plant retirements - based on owner feedback	2	12	3	23	4	3	47	7.8
Sensitivity: Significant major transmission outage (•e.g. Eau Claire – Arpin 345 kV OOS 1 week)	11	1	20	11	9	5	57	9.5
Sensitivity: High WI generation development	5	6	13	5	19	NA	48	9.6
Bound benefits: No ATC system constraints	6	18	10	13	6	6	59	9.8
Sensitivity: Vary Forced Outage Rates (FOR) +/- 25%	7	8	16	8	12	NA	51	10.2
Sensitivity: Impaired gas supply (•Price spikes , •1 week gas main outage)	22	2	11	14	10	4	63	10.5
Sensitivity: High wind (base assumption?)	4	11	12	10	16	NA	53	10.6
Sensitivity: Replicate spring 1997 conditions	9	9	4	24	7	NA	53	10.6
Bound benefits: Run feasible alternatives in 2009	8	22	9	6	8	NA	53	10.6
Sensitivity: NERC Category "C" outages and/or tower outages	13	7	19	9	11	NA	59	11.8
Bound benefits: Max import transfer capability - WI generation \$1,000 / MWhr & external "free"	20	20	5	16	2	NA	63	12.6
Sensitivity: Vary duration of planned outages +/- 25%	14	13	18	7	13	NA	65	13.0
Sensitivity: Retire Quad Cities and Dresden Nuclear units	15	14	17	12	18	NA	76	15.2
Bound benefits: Multiple "seed" draws	12	17	15	17	17	NA	78	15.6
Bound benefits: Max export transfer capability - (reverse assumptions above)	21	21	6	15	24	NA	87	17.4
Bound benefits: No Eastern Interconnection constraints	19	19	14	18	23	NA	93	18.6
Sensitivity: WI Generators offers are equal to offer cap whenever there is congestion into or within WI	NA	NA	NA	NA	1	NA	NA	NA



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Questions or Comments?