Narrow Constrained Area Mitigation Thresholds

Effective February 10th, 2012

	Thresholds (\$/MWH)
WUMS NCA	\$95.52
North WUMS NCA	\$26.44
SE Minnesota/N Iowa/SW Wisconsin NCA	\$64.10

Notes:

- 1. These NCA thresholds are calculated based on the annual fixed costs of a new peaking generator, the net revenue such a generator would likely earn in the NCA, and the number of hours in which constraints are binding into the NCA per the formula in Section 64.1.2 of the Midwest Independent System Operator (MISO) FERC Electric Tariff.
- 2. Annual fixed cost: Threshold calculation assumes an annual fixed cost for a new peaking generator of \$ 98.11 per KW-year. This annualized cost is calculated using: a) overnight capital costs of 683 \$/kW (inflated to 2011 \$ from EIA's 658 \$/kW in 2009 \$) for a combustion turbine estimated by the Energy Information Administration and used in the EIA 2011 Annual Energy Outlook; and b) most of the financing and other assumptions proposed by the MISO for use in the Resource Adequacy financial settlements, which are described on p. 6 of the Midwest ISO compliance filing dated November 19, 2008 (Docket No. ER08-394-003). The assumed corporate interest rate was adjusted to 5.2 percent based on prevailing market conditions and future inflation was assumed to be 2.0 percent.
- 3. Net Revenue: Net revenue is estimated assuming: a) a heat rate of 10,500 BTU/KWh; b) a gas price basis differential from the Chicago LDC of \$0.61 per MMBTU for WUMS and North WUMS, and of \$0.38 per MMBTU for SE Minnesota; c) a forced outage rate of five percent; and d) a minimum runtime of one hour. Based on these assumptions, the net revenue estimated for the NCAs for the prior 12 months were: \$34.87 for WUMS, 60.20 per KW-year for North WUMS, and \$50.04 per KW- year for SE Minnesota.
- 4. <u>Constrained Hours</u>: One or more constraints into WUMS and North WUMS were binding in 662 and 1,434 hours, respectively. One or more constraints into the Minnesota NCA were binding in 750 hours in 2011.