

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

**Midwest Independent Transmission)
System Operator, Inc. and)
Midwest ISO Transmission Owners) Docket No. ER10-1791-000
)**

**AMENDED MOTION FOR LEAVE TO ANSWER AND
ANSWER OF THE
AMERICAN WIND ENERGY ASSOCIATION
AND WIND ON THE WIRES**

Pursuant to Rules 212 and 213 of the Federal Energy Regulatory Commission’s (“Commission” or “FERC”) Rules of Practice and Procedure, 18 CFR §§ 385.212 and 385.213 (2010), the American Wind Energy Association (“AWEA”) and Wind on the Wires (“WOW”) hereby submit this Amended Motion for Leave to Answer and Answer of AWEA and WOW (“Amended Answer”) to the comments and protests filed by certain parties in response to the Midwest Independent Transmission System Operator, Inc (“Midwest ISO”) and the Midwest ISO Transmission Owners’ (collectively, “Filing Parties”) July 15, 2010 filing (“July 15 Filing”) of proposed revisions to the Midwest ISO’s Open Access Transmission, Energy and Operating Reserve Markets Tariff (“Tariff”) in the above-captioned dockets.

I. Motion for Leave to Amend our Answer

While AWEA and WOW recognize that Rule 213 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213, does not generally provide for answers to protests, the Commission permits such pleadings where, as here, the

information provided in an answer will facilitate its decisional process or aid in the explication of issues.¹

AWEA and WOW seek leave to amend our response to certain comments and protests filed in this proceeding in order to provide more up-to-date information based on the fact that revised information recently became available. Consistent with Commission precedent, this Amended Answer should be accepted because it further develops the record and will assist the Commission's decision in this proceeding. Accordingly, we respectfully request that Rule 213(a)(2) be waived and that the Commission accept the Amended Answer for good cause shown.

II. Amendment to Answer

A. Economic Benefits from MVPs Go Well Beyond Those Identified By the Midwest ISO and Are Regional in Nature

In our Answer in this proceeding, AWEA and WOW provided sample economic impact analysis from the MVP proposal for the Midwest states based on the National Renewable Energy Laboratory's ("NREL") Jobs and Economic Development Impact ("JEDI") model. The JEDI model, a forecasting tool intended to give the user a sense of scale of the job and economic impacts over a

¹ *Southwest Power Pool, Inc.*, 131 FERC ¶ 61,252, at P 19 (2010) (accepting answers because they "provided information that assisted our decision-making process"); *Midwest Indep. Transmission Sys. Operator, Inc.*, 129 FERC ¶ 61,060, at P 26 (2009) ("October 23 Order") (accepting answers because they "provided information that assisted our decision-making process"); *Morgan Stanley Capital Group, Inc. v. N.Y. Indep. Sys. Operator, Inc.*, 93 FERC ¶ 61,017 at 61,036 (2000) (accepting answer as "helpful in the development of the record"), *aff'd in part and remanded in part, Consol. Ed. v. FERC*, 347 F.3d 964 (D.C. Cir. 2003); *N.Y. Indep. Sys. Operator, Inc.*, 91 FERC ¶ 61,218 at 61,797(2000) (allowing answer as "useful in addressing the issues arising in these proceedings"); *Cent. Hudson Gas & Elec. Corp.*, 88 FERC ¶ 61,138 at 61,381 (1999) (accepting pleadings because they helped to clarify the issues and because of the complex nature of the proceeding).

period of time, was described in detail in our Answer. In putting together our analysis, we relied on data from the Regional Generation Outlet Study (“RGOS”) the Midwest ISO is conducting. Since the time of submitting our Answer, the Midwest ISO has continued, in conjunction with stakeholders, analyzing that data for the candidate MVP lines. At a recent meeting hosted by the Midwest ISO,² their staff presented new information identifying the likely interconnection points of the renewable energy zones identified in the RGOS study. This new information supports the assumptions we used in our JEDI analysis; however, there are some minor differences worth noting. And, this amended answer incorporates the new information presented by the Midwest ISO staff so that the record reflects the most accurate information related to the economic impacts from the MVP lines.

The new information indicates a greater amount of renewable megawatts would be expected to be developed in additional areas and/or wind zones within the Midwest ISO footprint than we included in the estimate in our Answer. Specifically, the new information identifies renewable energy zones that would tie directly into candidate MVP lines in two additional states³ and identifies new interconnections in two renewable energy zones; we had previously assumed those interconnections would connect with existing or future lines, but they have now been earmarked for interconnection with candidate MVP lines proposed for South

² 2011 Candidate MVP Portfolio Technical Studies Task Force Meeting (Nov. 10, 2010). See attached presentation at slides 20-22 & 26.

³ Those renewable energy zones are WI-B in Wisconsin and IN-E in Indiana.

Dakota and Minnesota.⁴ In addition, there is a renewable energy zone in Ohio that we are removing from our analysis because its interconnection point will be an existing transmission line. With this new information incorporated into the JEDI model, it results in an increase in our estimated total economic benefits, number of construction and full-time operations and maintenance jobs, and amount of payroll and environmental benefits from the Candidate MVP lines.

**i. Incremental Changes in Key Economic Factors
Due to New Information from the Midwest ISO’s Staff**

<u>Total Economic Benefits:</u>	+ \$1.9 billion
Construction Jobs:	+ 10,100
Construction Payroll:	+ \$500 million
Operations and Maintenance Jobs:	+ 275
O&M Payroll Over 25 Years:	+ \$331 million

Based on these revised figures, the estimates of economic benefit that result from the JEDI model are greater and are realized in an even wider area than we originally estimated. This indicates even greater regional benefits that would accrue to the Midwest if the MVP lines are constructed. The updated results of the JEDI analysis are presented below:

⁴ One renewable energy zone is in Minnesota [MN-E] and one renewable energy zone is in South Dakota [SD-H].

Summary of State Economic Impacts from Candidate MVPs -- 2012 thru 2036 (\$2010) (see **Attachment A** for a detailed breakout of economic benefits)

The updated job and payroll information by state is shown in the table below:

State	RGOS Wind Zone Information	Estimated Nameplate (MW)	TOTAL ECONOMIC BENEFITS
Iowa	IA-B, IA-F, IA-J	2,325	\$ 2.9 billion
UPDATED - Minnesota	MN-B, <u>MN-E</u> , MN-H, MN-K	<u>3,100</u>	\$ <u>4.1 billion</u>
North Dakota	ND-K	775	\$ 0.8 billion
UPDATED - South Dakota	<u>SD-H</u> , SD-J, SD-L	<u>2,325</u>	\$ <u>2.9 billion</u>
Illinois	IL-A, IL-K	1,100	\$ 1.8 billion
UPDATED - Indiana	<u>IN-E</u>	<u>500</u>	\$ <u>0.8 billion</u>
Michigan	MI-B, MI-C, MI-D, MI-E, MI-F	2,500	\$ 5.9 billion
Missouri	MO-C	500	\$ 0.7 billion
UPDATED - Ohio	OH-C	<u>725</u>	\$ <u>1.8 billion</u>
UPDATED - Wisconsin	<u>WI-B</u>	<u>775</u>	\$ <u>1.0 billion</u>
TOTAL:		<u>14,625</u>	<u>\$ 22.7 billion</u>

Summary of State Job Impacts From Candidate MVPs -- 2012 thru 2036 (\$2010)⁵ (see Attachment A for detailed breakout of the values below)

State	Construction		Operation & Maintenance	
	JOBS	PAYROLL (\$M)	JOBS (per year)	PAYROLL (\$M / year)
Iowa	10,950	\$475	350	\$15.50
UPDATED - Minnesota	15,100	\$795	475	\$24.90
North Dakota	3,500	\$155	100	\$4.90
UPDATED - South Dakota	11,550	\$455	375	\$14.80
Illinois	5,000	\$305	175	\$11.30
UPDATED - Indiana	2,350	\$110	100	\$4.60
Michigan	12,300	\$630	575	\$28.00
Missouri	2,400	\$115	75	\$3.90
UPDATED - Ohio	3,650	\$170	175	\$8.20
UPDATED - Wisconsin	3,850	\$185	125	\$5.70

TOTAL:	70,650	\$ 3.4 billion		
			TOTAL:	2,525
				\$ 121.8 million
			Payroll Over 25 Years:	\$ 3.0 billion

⁵ The purpose of the analysis is to give a sense of scale in terms of the number of jobs and dollars; therefore, the results are rounded. See Attachment A for a detailed breakout of economic benefits.

Potential Emission Reductions and Water Conservation⁶

	Estimated Capacity of 22 Wind Energy Zones (MW)	Savings from a Typical Pulverized Coal Plant
UPDATED - Capacity for 22 Wind Energy Zones	14,625	
UPDATED - Energy Avoided by Wind Energy Resources (MWh)		43,010,000
UPDATED - Emissions Savings:		
CO2 (lbs)		78 billion
NOX (lbs)		198 million
SO2 (lbs)		56 million
Nitrous Oxide (lbs)		5.6 million
Water Conservation (gallons per year):		21 billion

To provide a sense of scale of the water conservation and emission reductions: reducing carbon output by approximately 39 million tons is the approximate equivalent of removing between 6.5 and 7 million cars from the road per year.⁷

⁶ Emissions from a typical power plant based on pulverized coal are: 1,826lbs/MWh of CO₂, 4.6 lbs/MWh of NO_x, 1.3lbs/MWh of SO₂ and .13lbs/MWh of nitrous oxide. Mathew, Sathyajith, *Wind Energy Fundamentals, Resource Analysis and Economics*, at 180, 182 (2006) (citing Allam RJ, Spilsbury CG A study of the extraction of CO₂ from the flue gas of a 500 MW pulverized coal fire boiler (1992)). Approximate water usage by type of power plant is as follows: Nuclear 0.62 gal/kWh, Coal 0.49 gal/kWh, and Combined Cycle Gas 0.25 gal/kWh. AWEA, *How much water do wind turbines use compared with conventional power plants?*, available at (http://www.awea.org/faq/wwt_environment.html, (9/22/2010)).

⁷ A medium size car that averages 21 MPG and driven 12,000 miles per year will emit 6.6 U.S. tons of CO₂ in a year. This is from the carbon dioxide emissions calculator at Carbonify.com, available at <http://www.carbonify.com/carbon-calculator.htm>. The U.S. EPA estimates a similar passenger vehicle emits something in the range of 5.5 to 6 U.S. tons of CO₂ per year, available at (<http://www.epa.gov/oms/climate/420f05004.htm>).

The wind development identified in the RGOS Study, which would interconnect to the MVP Candidate lines, could conserve approximately 21 billion gallons of water per year or just under 58 million gallons per day, using the Midwest ISO's data. This would be equal to the daily consumption of approximately 322,000 people.⁸

III. Conclusion

WHEREFORE, AWEA and WOW respectfully request that the Commission accept this Amended Answer and consider the comments raised herein and in our previous Answer in taking any actions in this proceeding.

Respectfully submitted,

By: _____/s/ _Gene Grace_

Dated: November 22, 2010

⁸ The U.S. EPA also estimates that 240 million people in the U.S. are on public water supply systems and use more than 43 billion gallons per day. The U.S. EPA also estimates that power plants in the United States use approximately 136 billion gallons of water per day. Available at http://www.epa.gov/WaterSense/water_efficiency/how_we_use_water.html; Source: [U.S. Geological Survey's Estimated Use of Water in the United States in 2000](#)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this November 22, 2010.

_____/s/ Gene Grace_____
Gene Grace