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September 23, 2015

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

**RE: Reply to August 7, 2015, Comments of the Minnesota Department of Commerce,
Division of Energy Resources
Docket No. ET2, E015/CN-14-853
Motley 115 kV Project**

Dear Mr. Wolf:

Great River Energy, on behalf of itself and Minnesota Power (Applicants), herein submits reply comments to Department of Commerce, Division of Energy Resources (DOC-DER) comments dated August 7, 2015. DOC-DER recommended that “Applicants should add the Commission’s externality costs and the future cost of regulation of CO₂ regulation values to the economic analysis of alternatives presented in the Petition.” Great River Energy has discussed this recommendation with Mr. Michael Zajicek, DOC-DER rates analyst, and has agreed to provide CO₂ externality and future regulatory costs for the proposed Project as well as the route alternatives considered but rejected in the Petition. The PUC’s July 14, 2015, Order establishing the Environmental Assessment Scoping Decision did not move forward any of the route alternatives considered but reject by the applicants for analysis in the Environmental Assessment.

While the Project will not result in the direct emission of CO₂, a comparison of indirect emissions associated with transmission line losses can be made to assess the relative impacts of the proposed Project alternatives and the rejected alternatives. Great River Energy estimated transmission line losses for the existing system and for the proposed and rejected alternatives.

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Estimates for the proposed and rejected alternatives included converting Motley from 34.5 kV service to 115 kV service, as applicable for the alternative, and then adding in the additional losses associated with serving the pumping station. The net CO₂ costs range between zero and \$94,256 using the PUC's various externality and regulatory costs and are summarized in the attached Table 1.

If you have any questions about this information, please contact me at 763-445-5210 or MStrohfus@GREnergy.com.

Sincerely,

GREAT RIVER ENERGY

A handwritten signature in black ink that reads "Mark Strohfus". The signature is written in a cursive style with a large, looping "M" and "S".

Mark Strohfus
Environmental Project Lead

cc: David R. Moeller, Minnesota Power

Table 1 - Externality & Regulatory Costs of CO2 for Each Transmission Route Option

Transmission Route Option	Estimated Line Losses ⁽¹⁾ (MWh/yr)	Estimated CO ₂ Emissions ⁽²⁾ (tons CO ₂ /yr)	Estimated Externality Costs Applicable through 2018 ⁽³⁾			Estimated Regulatory Costs Applicable for 2019 and Beyond ⁽⁴⁾	
			Energy Generated Outside of MN @ \$0/ton (\$/yr)	Low Externality @ \$0.44/ton (\$/yr)	Low Externality @ \$4.53/ton (\$/Yr)	\$9/ton CO ₂ Regulatory Cost (\$/yr)	\$34/ton CO ₂ Regulatory Cost (\$/yr)
Existing System	836,897	647,340	-	284,830	2,932,449	5,826,058	22,009,554
Proposed West Route Option	839,632	649,455	-	285,760	2,942,033	5,845,098	22,081,482
Net change from existing system	2,735	2,116	-	931	9,583	19,040	71,928
Proposed East Route Option	839,646	649,466	-	285,765	2,942,082	5,845,196	22,081,850
Net change from existing system	2,749	2,126	-	936	9,632	19,137	72,296
Rejected Dog Lake Substation-Fish Trap Substation	838,722	648,751	-	285,451	2,938,844	5,838,763	22,057,550
Net change from existing system	1,825	1,412	-	621	6,395	12,705	47,996
Rejected Dog Lake Substation-Ward Substation-Fish Trap Substation	840,481	650,112	-	286,049	2,945,008	5,851,008	22,103,810
Net change from existing system	3,584	2,772	-	1,220	12,558	24,950	94,256
Rejected "47" Transmission Line-Ward Substation-Fish Trap Substation	837,017	647,433	-	284,870	2,932,870	5,826,894	22,012,710
Net change from existing system	120	93	-	41	420	835	3,156

Notes:

- (1) Calculated as described in Section 4.5 of "Application to the Minnesota Public Utilities Commission for a Certificate of Need and Route Permit - Motley Area 115 kV Project", March 2015.
- (2) Calculated based on an average CO₂ intensity of 1,547 lb/MWh as established under PUC Docket No. E,G-999/CI-00-1343, in a letter from Anne Claflin, Minnesota Pollution Control Agency, to Dr. Burl W. Haar, MPUC, May 13, 2014.
- (3) Externalities values taken from May 27, 2015 Order in the Matter of the Investigation into Environmental and Socioeconomic Costs Under Minn. Stat. §216B.2422, Subd 3.
- (4) Regulatory cost values taken from Order Establishing 2014 and 2015 Estimate of Future Carbon Dioxide Regulations Costs, PUC Docket No. E-999/CI-07-1199, April 28, 2014.