

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Rock Island Clean Line LLC)
)
Petition for an Order granting Rock Island)
Clean Line a Certificate of Public Convenience)
and Necessity pursuant to Section 8-406 of the)
Public Utilities Act as a Transmission Public)
Utility and to Construct, Operate and Maintain)
an Electric Transmission Line and Authorizing)
and Directing Rock Island Clean Line pursuant)
to Section 8-503 of the Public Utilities Act to)
Construct an Electric Transmission Line.)

Docket No. 12-0560

REBUTTAL TESTIMONY OF

GARY MOLAND

ON BEHALF OF

ROCK ISLAND CLEAN LINE LLC

ROCK ISLAND EXHIBIT 3.5

August 20, 2013

1 **Q. Please state your name, business address and present position.**

2 A. My name is Gary Moland. I am the Director of Power Markets & Transmission Analysis at
3 GL Garrad Hassan. My business address is 45 Main Street, Suite 302, Peterborough, New
4 Hampshire 03458.

5 **Q. Have you previously submitted prepared testimony and exhibits in this proceeding?**

6 A. Yes, I have previously submitted prepared direct testimony, dated October 10, 2012, which
7 is identified as Rock Island Exhibit 3.0, and accompanying exhibits identified as Rock
8 Island Exhibits 3.1 through 3.4.

9 **Q. What is the purpose of your rebuttal testimony?**

10 A. I will address two topics. First, I will present PROMOD results for an additional sensitivity
11 based on the assumption that a substantial amount of conventional, natural gas-fired
12 generation connects to the Rock Island Clean Line Project's western converter. Rock Island
13 witness David Berry, in his rebuttal testimony, discusses the likelihood that natural gas-fired
14 generation will connect to the Project's western converter station and use the Project to
15 deliver electricity to Northern Illinois. Second, I will explain how the analysis presented in
16 my direct testimony considers congestion costs, and how the Project actually reduces
17 congestion costs to Illinois consumers.

18 **Q. Are there still benefits to Illinois consumers if conventional natural gas-fired
19 generation provides energy over the Rock Island Clean Line instead of wind
20 generation?**

21 A. Yes, there are still significant benefits to Illinois consumers in the event that a significant
22 amount of energy from conventional natural gas-fired generation is delivered by the Project.
23 Using PROMOD and the cases and assumptions used to produce the analyses presented in
24 my direct testimony, I performed additional sensitivities in which half of the new capacity

25 delivering energy over the Rock Island Project was changed from wind generation to gas-
26 fired combined cycle generation. I ran this alternative for two of my scenarios, the Business
27 as Usual and the Slow Growth scenarios, for both the 2016 and 2020 study years. (The
28 assumptions underlying the Business as Usual and Slow Growth scenarios are described in
29 my direct testimony.) The results for these additional cases are provided in Rock Island
30 Exhibit 3.6. The results show that even in scenarios in which substantial natural gas-fired
31 generation is connected to the Project and uses the Project to deliver electricity to Northern
32 Illinois, the Rock Island Project still substantially reduces demand costs, that is, the cost of
33 procuring wholesale electricity, for Illinois consumers.

34 **Q. Do your PROMOD analyses capture the costs of transmission congestion paid by**
35 **Illinois consumers?**

36 A. Yes. Congestion costs, or the difference in marginal electricity price between different
37 nodes on the system, are included as a component of Locational Marginal Prices (LMPs) in
38 both the MISO and PJM markets. These congestion costs are captured by PROMOD in the
39 simulations performed to assess the Project which I presented in my direct testimony.
40 PROMOD models the electric system subject to transmission constraints at a very granular
41 level, so congestion is estimated in a detailed fashion. Since the demand cost is calculated
42 by multiplying the hourly demand times the LMP, and since the LMP includes congestion
43 costs, the cost of congestion is included in the demand cost savings I presented in my direct
44 testimony.

45 **Q. Will the Rock Island Clean Line Project increase or decrease transmission congestion**
46 **costs for Illinois consumers?**

47 A. In seven of the eight model cases presented in my direct testimony, the Project reduces
48 transmission congestion costs paid by Illinois consumers. The table below shows the

49 amount of savings in Demand Cost due to reduced congestion across all the scenarios for
 50 both study years. The only case showing an increase in congestion is the Green Economy
 51 scenario in 2020. And even in this case, the decreases in other LMP components (energy
 52 price and marginal loss cost) more than offset the increase in congestion costs, resulting in a
 53 net benefit for Illinois consumers from the Project in terms of wholesale electricity prices.

		Business as Usual	Slow Growth	Robust Economy	Green Economy
Demand Cost Savings with Rock Island Clean Line 2016 (mm USD)	PJM Illinois	\$301	\$236	\$452	\$446
	MISO Illinois	19	13	36	46
	Total	320	249	488	493
Savings due to Reduced Congestion 2016 (mm USD)	PJM Illinois	216	156	319	247
	MISO Illinois	6	3	9	4
	Total	\$223	\$158	\$328	\$251
% Savings from Reduced Congestion 2016	PJM Illinois	72%	66%	71%	55%
	MISO Illinois	34%	22%	26%	8%
	Total	69%	64%	67%	51%
Demand Cost Savings with Rock Island Clean Line 2020 (mm USD)	PJM Illinois	\$219	\$168	\$249	\$83
	MISO Illinois	23	11	41	10
	Total	242	179	289	93
Savings due to Reduced Congestion 2020 (mm USD)	PJM Illinois	107	97	118	-212
	MISO Illinois	4	2	8	-22
	Total	\$111	\$100	\$126	-\$235
% Savings from Reduced Congestion 2020	PJM Illinois	49%	58%	47%	-256%
	MISO Illinois	17%	21%	20%	-228%
	Total	46%	56%	44%	-253%

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55 **Q. Does this conclude your rebuttal testimony?**

56 A. Yes, it does.