

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Rock Island Clean Line LLC)	
)	
Petition for an Order granting Rock Island)	
Clean Line LLC a Certificate of Public)	
Convenience and Necessity Pursuant to Section)	
8-406 of the Public Utilities Act as a)	Docket No. 12-_____
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.)	

DIRECT TESTIMONY OF

MATTHEW KOCH

ON BEHALF OF

ROCK ISLAND CLEAN LINE LLC

ROCK ISLAND EXHIBIT 8.0

OCTOBER 10, 2012

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1 Certain capitalized terms in this testimony have the meaning set forth in the Glossary included as
2 **Attachment A** to the Direct Testimony of Michael Skelly, Rock Island Exhibit 1.0.

3 **I. WITNESS INTRODUCTION AND PURPOSE OF TESTIMONY**

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

5 A. My name is Matthew Koch. I am a project manager and environmental consultant with
6 HDR Engineering, Inc. (“HDR”). My business address is 30 North LaSalle Street, Suite
7 3220, Chicago, IL 60602.

8 **Q. Please describe your education and professional background.**

9 A. I have a Bachelor of Science degree in Wildlife Biology and a Graduate Certificate in
10 Geographic Information Science from Kansas State University. I have been with HDR
11 since October 2010. As an environmental consultant, I have worked exclusively on
12 power generation and energy delivery projects. During my career I have been involved
13 in providing siting, permitting, or public involvement efforts for over 1,700 miles of
14 transmission lines, primarily in the Midwest. Prior to my employment with HDR, I was
15 with Natural Resources Group (“NRG”) and ARCADIS U.S. Inc. (“ARCADIS”) for
16 almost two years each, serving as a GIS manager, biologist, assistant project manager,
17 and project manager.

18 **Q. What is the purpose of your testimony?**

19 A. As HDR’s Assistant Project Manager for the Illinois portion of the Rock Island Clean
20 Line transmission line project (“Rock Island Project” or “Project”), the purpose of my
21 testimony is to sponsor the Rock Island Routing Study, Rock Island Exhibit 8.2. The
22 Rock Island Routing Study describes the processes, criteria, data, and information that

23 were used to determine the Preferred Route and the Proposed Alternative Route for the
24 Rock Island Project and why those specific routes were determined by the Routing Team.

25 **Q. What is your previous experience in providing routing, agency consultation, public**
26 **outreach, and permitting services for transmission line projects?**

27 A. While employed at ARCADIS and NRG, I assisted in the routing, agency consultation,
28 and public outreach for three electric transmission line projects and one natural gas
29 pipeline project in Illinois. Two of these projects were the Ameren Illinois Power
30 Latham to Oreana 345 kV Transmission Line Project, which received a Certificate of
31 Public Convenience and Necessity (“CPCN”) on April 12, 2011 (ICC Docket No. 10-
32 0079), and the Ameren Illinois Company (“AIC”) Bondville to Southwest Campus 138
33 kV Transmission Line Project, which received a CPCN on August 15, 2012 (ICC Docket
34 No. 12-0080). The other project was the AIC Brokaw to South Bloomington 345 kV
35 Transmission Line Project which received a CPCN on September 6, 2012 (ICC Docket
36 No. 12-0154). The Illinois natural gas pipeline project I worked on was the AmerenCIPS
37 Marion Pipeline Project, which received a CPCN in ICC Docket No. 09-0290.

38 While employed at ARCADIS and NRG, I also performed routing studies, agency
39 consultation, public involvement, and permitting for other projects in the Midwest. Two
40 notable projects were the CapX2020 Monticello to St. Cloud and the CapX2020 Fargo to
41 St. Cloud 345 kV Transmission Line Projects. These two projects comprised over 200
42 miles of transmission line in North Dakota and Minnesota. The other project was a
43 feasibility study that included the routing of a 500-mile long, 500 kV transmission line
44 from Manitoba, Canada to near Minneapolis, Minnesota.

45 **Q. In addition to your prepared direct testimony, are you sponsoring any other exhibits**

46 **in this case?**

47 A. Yes, I am sponsoring Rock Island Exhibit 8.1, which depicts the Preferred Routes and
48 Proposed Alternative Routes that are being proposed for the Project, and Rock Island
49 Exhibit 8.2, which is the Rock Island Routing Study.

50 **II. HDR QUALIFICATIONS AND EXPERIENCE**

51 **Q. Please describe the business of HDR.**

52 A. HDR is an employee-owned firm founded in 1917 that provides engineering and
53 environmental consulting services. HDR has provided engineering and environmental
54 services on over 25,000 miles of transmission lines nationwide. HDR has performed
55 routing studies for ten electric transmission line projects with voltages of 345 kV or
56 greater in the last five years or that are now in progress. These ten projects alone total
57 over 3,000 miles of transmission lines across the U.S. HDR has over 170 offices in the
58 United States.

59 **Q. Please explain HDR's involvement in the Rock Island Project.**

60 A. HDR was retained as a consultant by Rock Island Clean Line LLC ("Rock Island") to
61 perform routing analysis, agency consultation, public outreach, and permitting activities
62 for the Rock Island Project. Specific to my testimony and exhibits, HDR has performed a
63 routing analysis and provided support in the public involvement activities that were
64 integrated into the route determination process for the Rock Island Project. HDR's
65 routing analysis included analyzing potential impacts to Sensitivities in the Project Area
66 such as homes, buildings, landowners, existing and future land cover and uses, public
67 lands, water resources, recreational and natural areas, protected species, and cultural
68 resources. The analysis also considered the degree to which potential routes take

69 advantage of existing Opportunities and adhere to the Technical Guidelines for the Rock
70 Island Project. The analysis also incorporated feedback received from stakeholders
71 during the public involvement process.

72 **Q. Were other HDR personnel involved in providing these services for the Rock Island**
73 **Project?**

74 A. Yes. The Routing Team included a group of interdisciplinary routing professionals from
75 HDR with a combined 54 years of direct routing experience. The other HDR personnel
76 who served as members of the Routing Team and their positions are listed in Appendix A
77 of the Rock Island Routing Study, Rock Island Exhibit 8.2. Appendix A also lists
78 personnel of Rock Island, POWER Engineers, Inc. and Kiewit Power Constructors Co.
79 who were members of the Routing Team.

80 **III. ROCK ISLAND ROUTING STUDY**

81 **Q. What is shown on Rock Island Exhibit 8.1?**

82 A. Rock Island Exhibit 8.1 is a set of maps that depict the Preferred Routes and the Proposed
83 Alternative Routes for the Rock Island Project. These routes were determined through an
84 integrated route development and public involvement process that is described in the
85 Rock Island Routing Study.

86 **Q. Why do you refer to Preferred Routes and Proposed Alternative Routes rather than**
87 **a Preferred Route and a Proposed Alternative Route?**

88 A. The Rock Island Project will consist of (1) a ± 600 kilovolt (“kV”) high voltage direct
89 current (“DC”) transmission line from the western converter station in Iowa to the eastern
90 converter station in Channahon, Illinois (the “DC Section” of the Project), and (2) both a
91 single-circuit 345 kV alternating current (“AC”) transmission line and a double-circuit

92 345 kV AC transmission line from the eastern converter station to an interconnection
93 with the 765 kV transmission system of Commonwealth Edison at the Collins Substation
94 in Grundy County, Illinois (the “AC Section” of the Project). In the route development
95 process, a Preferred Route and a Proposed Alternative Route were developed for the DC
96 Section and, separately, a Preferred Route and a Proposed Alternative Route were
97 developed for the AC Section.

98 **Q. Please provide an overview of the route development process for the Rock Island**
99 **Project.**

100 A. The Routing Team began the integrated route development and public involvement
101 process for the Rock Island Project in March 2010, following the stages of the route
102 development process defined herein. The steps, or stages, of the route development
103 process consisted of: 1) Project Area Identification Stage, 2) Study Corridor
104 Identification Stage, 3) Alternative Route Corridor Identification Stage, and 4) Route
105 Identification and Selection Stage. Each stage of route development was guided by the
106 Routing Criteria for the Rock Island Project. The Routing Criteria are listed in Section
107 4.2 of the Routing Study, Rock Island Exhibit 8.2. Each stage involved in the route
108 development process resulted in narrowing the geographic focus of the study until the
109 Preferred Routes and the Proposed Alternative Routes were identified. The specific
110 activities in each stage were as follows:

111 1. The Project Area Identification Stage involved identifying the Rock Island
112 Project endpoints, evaluating the best locations for the Mississippi River
113 crossing, and identifying major Opportunity features. Input was solicited and
114 obtained from federal and state agencies and local government officials in this

115 stage of route development. This stage resulted in identification of the Project
116 Area in Illinois.

117 2. The Study Corridors Identification Stage involved identifying (1) the best
118 crossing locations for major rivers within Illinois and (2) areas with low
119 concentrations of Sensitivities. Additionally, the Routing Team identified
120 existing Opportunities that the Rock Island Project could parallel while
121 minimizing impacts to Sensitivities within the Project Area. The result of these
122 activities was the identification of a set of Study Corridors within the Project
123 Area. The Study Corridors that were chosen were generally 3-10 miles wide.
124 Input was solicited and obtained from numerous sources at this stage, including
125 federal and state agencies, local government officials, non-governmental
126 organizations (“NGOs”), and the public.

127 3. In the Alternative Route Corridor Identification Stage, further analysis was
128 performed to narrow the Study Corridors to Alternative Route Corridors. The
129 Alternative Route Corridors were determined by analyzing over 1,200 Route
130 Segments and corresponding potential routes within the Study Corridors and
131 identifying those that best met the Routing Criteria. Through this analysis,
132 Alternative Route Corridors were identified that were generally 3,000 feet wide.
133 Input was again solicited and obtained from federal and state agencies, local
134 government officials, NGOs, and the public.

135 4. The Route Identification and Selection Stage involved identifying Study Routes
136 from the Alternative Route Corridors. Five Study Routes (identified in the
137 Routing Study as Study Routes A, B, C, D and E), each 200 feet wide, were

138 identified for the DC Section of the Rock Island Project. Three Study Routes
139 (identified in the Routing Study as Study Routes F, G and H), each 270 feet in
140 width (135 feet for each of the two parallel 345 kV lines), were identified for
141 the AC Section of the Rock Island Project. Through further analysis of the
142 Study Routes, the Routing Team determined Study Route A to be the Preferred
143 Route and Study Route B to be the Proposed Alternative Route for the DC
144 Section of the Rock Island Project. The Routing Team determined Study Route
145 F to be the Preferred Route and Study Route G to be the Proposed Alternative
146 Route for the AC Section of the Rock Island Project.

147 Mr. Detweiler's testimony provides a more extensive discussion of the public
148 involvement and outreach activities conducted in each stage.

149 **Q. Why was Study Route A determined to be the Preferred Route for the DC Section of**
150 **the Rock Island Project?**

151 A. Study Route A was determined to be the Preferred Route for the DC Section of the Rock
152 Island Project because it best meets the Routing Criteria. Specifically, it is the shortest
153 route of the Study Routes and has the lowest overall impact to Sensitivities, including
154 residences, non-residential structures, parcels, landowners, existing land cover, prime
155 farmland, center pivot irrigators, and high probability archaeological areas. Study Route
156 A is comparable to the other Study Routes analyzed for the DC Section in terms of
157 impacts to airports, licensed daycares, hospitals, religious facilities, cemeteries, schools,
158 contaminated sites, future land use and development, Illinois Agricultural Areas, Illinois
159 Department of Natural Resources lands, Illinois Nature Preserve Commission lands,
160 designated critical habitats, special status species, Audubon Important Bird Areas, Illinois

161 Natural History Survey Biologically Significant Streams, and water bodies; it has little or
162 no impacts on many of these Sensitivities.

163 **Q. Why was Study Route B determined to be the Proposed Alternative Route for the**
164 **DC Section of the Rock Island Project?**

165 A. Study Route B was determined to be the Proposed Alternative Route for the DC Section
166 of the Rock Island Project because, although it does not meet the Routing Criteria as well
167 as the Preferred Route, it meets the Routing Criteria better than any of the other Study
168 Routes, and it is a reasonable alternative that would be acceptable to Rock Island if
169 approved by the Commission.

170 **Q. Why was Study Route F determined to be the Preferred Route for the AC Section of**
171 **the Rock Island Project?**

172 Study Route F was determined to be the Preferred Route for the AC Section of the Rock
173 Island Project because it is the shortest route and has the lowest overall impact on
174 Sensitivities. Although Study Route F has a slightly higher impact to residences than
175 Study Route H based on the Measures, Study Route H would introduce an additional
176 transmission line corridor in this area. Study Route H, along with another utility's
177 existing 765 kV transmission line to the west, would result in 12 homes being surrounded
178 on all four sides with 765 kV transmission lines.

179 **Q. Why was Study Route G determined to be a Proposed Alternative Route for the AC**
180 **Section of the Rock Island Project?**

181 A. Study Route G was determined to be a Proposed Alternative Route for the AC Section of
182 the Rock Island Project because, although it is longer and has a higher overall impact to
183 Sensitivities than the Preferred Route (Study Route F), it parallels an existing 765/345 kV

184 transmission line corridor for its entire length and would not further fragment any
185 existing land use or environmental habitat.

186 **Q. Based on your experience, is the Rock Island Routing Study a reasonable and**
187 **thorough study to identify the best route for the Project?**

188 A. Yes. Over a period of two years, the Routing Team used an integrated route development
189 and public involvement process to identify numerous potential routes for the Rock Island
190 Project. These routes were analyzed using the Routing Criteria for the Project and
191 through extensive outreach to stakeholders and solicitation of information and feedback
192 from them. The Rock Island Routing Study used the latest technology for its analysis. It
193 incorporated numerous data sources including internet data repositories, public agencies,
194 field reviews, and information from meetings with stakeholders and the public. The
195 Routing Criteria and the process used to determine the Preferred Routes and the Proposed
196 Alternative Routes are consistent with industry best practices and methodology for siting
197 an electric transmission line like the Rock Island Project.

198 **Q. Does this conclude your prepared direct testimony?**

199 A. Yes it does.