

MIDTOWN GREENWAY COALITION INFORMATION REQUEST

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 **Public Document**

Xcel Energy

Docket No.: OAH 15-2500-20599-2

PUC No. E-002/TL-09-38

Response To: Midtown Greenway Coalition

Information Request No. 23  
Response Supplement

Date Received: September 30, 2009

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Question:

The Application (p. 17) describes the potential expansion of the proposed Hiawatha Substation.

- A. State in what year Applicant has projected that expansion of the proposed Hiawatha Substation would be needed.
- B. State the size of the footprint that would be required for the “expanded” Hiawatha Substation (a) with a low-profile design, and (b) with a high-profile design.
- C. Provide an estimate of the capital costs projected for the potential expansion of the proposed Hiawatha Substation.
- D. Detail the nature of community load-serving needs that Applicant believes would require expansion of the Hiawatha Substation, along with the location of the load and a year-by-year projection of percentage and megawatt growth.
- E. Describe in detail all planning studies showing a need for the above substation expansion. Provide copies of any such studies that are not contained in Appendix D of the Application.
- F. Describe all conservation, distributed energy, electricity storage and smart grid technologies specifically considered by Applicant to reduce the likelihood that the above Substation expansion would be needed. Provide copies of any studies, documents, or memoranda describing Applicant’s consideration of such measures.

Original Response:

- A. At this time no foot print expansion is being considered and is not part of the 10-year planning horizon. Should demand for electricity increase to warrant additional transmission facilities, the preferred Hiawatha Substation site would allow for expansion for additional interconnections to meet this need.

**B.** The “expanded” Hiawatha Substation refers to a potential 345kV substation yard. This was a projection of future need that was identified in 2008 as part of a 10-year vision planning process. See Response to Information Request No. 22. Northern States Power Company, a Minnesota corporation (Xcel Energy), uses only the low-profile design for 345kV substation yards.

Assuming that the proposed Hiawatha Substation West would be a “low-profile” design with dimensions of 253 feet x 392 feet, the dimensions for the proposed additional space for the “expanded” Hiawatha Substation on the proposed Zimmer Davis site would be approximately: 565 feet x 250 feet. These dimensions are preliminary since detailed design and engineering has not been done.

**C.** Plans are no longer in place to expand the Hiawatha Substation. However, initial capital cost estimates for equipment alone were estimated to be approximately \$17 million in 2009 dollars.

**D.** There are no current plans to expand the Hiawatha Substation. If load in the entire metro area continues to grow beyond the load serving capabilities of the existing 115 kV transmission system, it may be necessary to introduce a larger 345 kV source to relieve the 115 kV system. Based on current analyses and demand projections, no such need is anticipated within the next 10 years.

**E.** The analyses are contained in Appendix D of the Application.

**F.** There are no plans for expansion at this time.

Response Supplement:

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Please see the supplemental response for IR 22.

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