

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

Citizens Energy Task Force and )  
Save Our Unique Lands, )  
 )  
Complainants, )  
 )  
v. )  
 )  
Midwest Reliability Organization, Midwest )  
Independent Transmission System Operator, )  
Inc., Xcel Energy Inc., Great River Energy, )  
Dairyland Power Cooperative, and )  
WPPI Energy, )  
 )  
Respondents. )

Docket No. EL13-49-000

**ANSWER OF RESPONDENT UTILITIES**

Pursuant to Rules 206(f) and 213 of the Rules of Practices and Procedure of the Federal Energy Regulatory Commission (the “Commission”),<sup>1</sup> Respondent Utilities<sup>2</sup> submit this Answer in response to the Complaint of Citizens Energy Task Force (“CETF”) and Save Our Unique Lands (“SOUL,” and collectively with CETF, “Complainants”) filed on March 1, 2013 in the above-referenced docket.<sup>3</sup> The Complaint criticizes the CapX2020 Twin Cities – La Crosse

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<sup>1</sup> 18 C.F.R. §§ 385.206(f); 385.213 (2012).

<sup>2</sup> Respondent Utilities are Xcel Energy Services Inc. (“XES”), on behalf of its holding company parent Xcel Energy Inc. (“XEI”), and its operating company affiliates Northern States Power Company, a Minnesota corporation (“NSPM”), and Northern States Power Company, a Wisconsin corporation (“NSPW,” and collectively with XES, XEI, and NSPM, “Xcel Energy”), Great River Energy (“GRE”), Dairyland Power Cooperative (“DPC”), and WPPI Energy (“WPPI”).

<sup>3</sup> Complainants appear to have filed two versions of the Complaint with the Commission on the same day. Upon review, the bodies of both filed complaints appear to be identical. In this answer, Respondent Utilities will cite to the first Complaint filed.

345 kV transmission project (“Project”)<sup>4</sup> and the process used in the development, regulatory approvals, and construction of that Project.<sup>5</sup>

## I. INTRODUCTION

The instant Complaint highlights Complainants’ unsuccessful yet repeated efforts to disrupt the development of greatly needed transmission infrastructure in the Upper Midwest region. Having failed to block the Project before the two state regulatory commissions with direct jurisdiction over whether the Project is needed and, if so, where it should be constructed,<sup>6</sup> the Complaint repeats Complainants’ deficient claims before the Commission.

Respondent Utilities agree that the reliability of the transmission system is critically important, but Complainants have not met their burden to establish that the Project creates any reliability problems. The Complaint assumes that the transmission planning work for the Twin Cities – La Crosse Project violates certain North American Electric Reliability Corporation (“NERC”) planning standards.<sup>7</sup> The Complaint asserts that the Respondent Utilities concealed information in the planning process<sup>8</sup> and violated the National Environmental Policy Act

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<sup>4</sup> The Twin Cities – La Crosse Project is a new 345 kV transmission line from the new NSPM Hampton Substation in the Twin Cities area to an intermediate substation in the Rochester, Minnesota area and terminating at the new NSPW Briggs Road Substation in the La Crosse, Wisconsin area with two 161 kV extensions into local load serving areas.

<sup>5</sup> NSPM, NSPW, WPPI, DPC, the Southern Minnesota Municipal Power Agency (“SMMPA”), and Rochester Public Utilities (“RPU”) are participants in the CapX2020 Initiative and are the sponsors of the Project. The Respondent Utilities have been authorized to state that SMMPA and RPU are in agreement with the contents of this response. Both are separately filing their own interventions and responses to the Complaint. Respondent GRE is a CapX2020 participant but not a participant in the Project, and thus is not properly a party to the Complaint.

<sup>6</sup> *In re Application for Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for Certificates of Need for Three 345 kV Transmission Lines with Associated System Connections*, MPUC Docket No. ET-2, E-002, *et al.*/CN-06-1115 (“Minnesota CON Proceeding”), ORDER GRANTING CERTIFICATES OF NEED WITH CONDITIONS (May 22, 2009) (“Minnesota CON”); *Joint Application of Dairyland Power Cooperative, Northern States Power Company – Wisconsin, and Wisconsin Public Power Inc., for Authority to Construct and Place in Service 345 kV Electric Transmission Lines and Electric Substation Facilities for the CapX Twin Cities – Rochester – La Crosse Project, Located in Buffalo, Trempealeau, and La Crosse Counties, Wisconsin*, PSCW Docket No. 5-CE-136 (“Wisconsin CPCN Proceeding”), FINAL DECISION (May 30, 2012) (“Wisconsin CPCN”).

<sup>7</sup> Complaint at p. 8.

<sup>8</sup> Complaint at pp. 10, 19. A copy of Complainants’ press release is attached hereto as Attachment A.

(“NEPA”).<sup>9</sup> Not only are these allegations utterly lacking factual support, but the Complaint fails to identify the impact on Complainants or any other user of the transmission system of these alleged actions. The Commission should deny the Complaint as deficient for failing to satisfy the Commission’s minimum requirements.<sup>10</sup>

Further, the Complaint’s assertions lack merit. The Twin Cities – La Crosse Project was planned and permitted to address near term load serving needs in the relevant areas of Minnesota (the Rochester area) and Wisconsin (the La Crosse area).<sup>11</sup> Nothing in the Complaint contradicts or calls into question this important need. Additionally, the Project will serve as a foundational facility for future transmission expansions.<sup>12</sup> The planning efforts undertaken for the Project are fully compliant with all applicable NERC planning standards.<sup>13</sup> This planning work has been fully evaluated by two separate state regulatory commissions, which each independently found the information sufficient to justify the need for the Project.<sup>14</sup>

The Midwest Independent Transmission System Operator, Inc. (“MISO”) has also approved the Twin Cities – La Crosse Project through its own independent and separate analysis and has fully justified the Project’s compliance with applicable planning standards in its 2008 MISO Transmission Expansion Plan (“MTEP08”).<sup>15</sup> Any complaint challenging MTEP08 should have been brought long ago and is now untimely.

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<sup>9</sup> Complaint at p. 15.

<sup>10</sup> 18 C.F.R. § 385.206; *Californians for Renewable Energy, Inc. v. Pacific Gas & Electric Company and California Energy Commission*, 129 FERC ¶ 61,141 at P 11 (2009) (dismissing complaint for failing to support the allegations made therein).

<sup>11</sup> Minnesota CON at pp. 25–26; Wisconsin CPCN at p. 7.

<sup>12</sup> Minnesota CON at p. 25–26; Wisconsin CPCN at pp. 12–17.

<sup>13</sup> Affidavit of Mr. Daniel P. Kline (“Kline Affidavit”) at pp. 12–19 (attached hereto as Attachment B).

<sup>14</sup> Minnesota CON at p. 25–26; Wisconsin CPCN at pp. 8–10.

<sup>15</sup> Midwest Independent Transmission System Operator, Inc., Midwest ISO Transmission Expansion Plan 2008 at pp. 186–95, available at <https://www.midwestiso.org/Library/Repository/Study/MTEP/MTEP08/MTEP08%20Report.pdf> (“MTEP08”).

The Complaint relies heavily on certain studies that identified and analyzed the next increment of transmission expansion that would be necessary after the Twin Cities – La Crosse Project is placed in service and with thousands of additional megawatts of new generation added to the system. Specifically, the Study Report of Electric Transmission Corridor Upgrade from Granite Falls Area to Southwest Twin Cities (“Corridor Study”),<sup>16</sup> the Minnesota RES Update Study Report (“RES Update”),<sup>17</sup> and the Western Wisconsin Transmission Reliability Study (“WWTRS”),<sup>18</sup> each assumes the Twin Cities – La Crosse Project in all underlying system models as well as the need to accommodate generation levels over and above those studied for the Twin Cities – La Crosse Project.<sup>19</sup> The referenced studies do not demonstrate that the existing transmission system at existing system generation levels has reliability issues or will have them with the addition of the Twin Cities – La Crosse Project. Taking quotations out of context from these studies does not prove Complainants’ point. Rather, the studies all stand for the opposite proposition: the Twin Cities – La Crosse Project is needed and is assumed to be completed, and subsequent studies provide analysis of the potential next step. Complainants’ reliance on the Capacity Validation Study (“CVS”)<sup>20</sup> and the CapX2020 Hampton – Rochester – La Crosse 345 kV Project Supplemental Need Study (“Supplemental Need Study”)<sup>21</sup> is equally

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<sup>16</sup> Minnesota Transmission Owners, Final Report – Southwest Twin Cities – Granite Falls Transmission Upgrade Study & Minnesota RES Update Study, Companion Report for the Southwest Twin Cities – Granite Falls Transmission Study Technical Report and the Minnesota RES Update Study Technical Report (2009) (“Corridor Study and RES Update Companion Report”); Minnesota Transmission Owners, Study Report of Electric Transmission Corridor Upgrade from Granite Falls Area to Southwest Twin Cities (2009) (“Corridor Study”); Minnesota Transmission Owners, Minnesota RES Update Study Report (2009) (“RES Update”) (all attached hereto as Attachment C).

<sup>17</sup> *Id.*

<sup>18</sup> American Transmission Company, Western Wisconsin Transmission Reliability Study (“WWTRS”) (2010) (attached hereto as Attachment D).

<sup>19</sup> Corridor Study at p. 3; RES Update at pp. 11, 19; WWTRS at p. 2.

<sup>20</sup> Minnesota Transmission Owners, Capacity Validation Study (2009) (attached hereto as Attachment E).

<sup>21</sup> CapX2020 Hampton – Rochester – La Crosse 345 kV Project Supplemental Need Study (“Supplemental Need Study”) (2011) (attached hereto as Attachment F).

misplaced as the these studies further justify the need for the Project in its 345 kV configuration.<sup>22</sup>

For all these reasons the Complaint should be dismissed.

## II. COMMUNICATIONS AND SERVICE

Respondent Utilities respectfully request that the following persons be placed on the official service list in this proceeding:

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## III. BACKGROUND

### A. The Parties

Respondent Xcel Energy Inc.<sup>23</sup> is a utility holding company whose first tier subsidiaries include NSPW, NSPM, and XES.<sup>24</sup> NSPW is a Wisconsin corporation and a vertically

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<sup>22</sup> CVS at pp. 8–9; Supplemental Need Study at p. 1. Further, the Supplemental Need Study was relied upon by the Public Service Commission of Wisconsin in its approval of permits for the Twin Cities – La Crosse Project. Wisconsin CON.

integrated utility that, *inter alia*, provides electric generation, transmission, and distribution services in Western Wisconsin (including the La Crosse area) and the Upper Peninsula of Michigan. NSPM is a Minnesota corporation and a vertically integrated utility that, *inter alia*, provides electric generation, transmission, and distribution services in Minnesota, North Dakota, and South Dakota. NSPM and NSPW are each transmission owning members of MISO and provide transmission service over their facilities pursuant to the MISO Open Access Transmission Energy and Operating Reserve Markets Tariff (“Tariff” or “MISO Tariff”). NSPM and NSPW operate an integrated electric system (the “NSP System”) pursuant to an Interchange Agreement on file with the Commission.<sup>25</sup> NSPM and NSPW are participants in the Project. XES is the service company for the Xcel Energy Inc. holding company system and an affiliate of NSPM and NSPW. XES performs an array of services on behalf of the NSP Companies and the other Xcel Energy utility operating companies. Among other things, XES makes filings with and appears in proceedings before the Commission on behalf of NSPW and NSPM.

Respondent GRE is a non-Commission jurisdictional Minnesota electric generation and transmission cooperative corporation providing wholesale electric service to 28 member distribution cooperatives in the States of Minnesota and Wisconsin. GRE is also a transmission owning member of MISO and the high voltage GRE transmission system (100 kV and above) is subject to MISO functional control. GRE is not a participant in the Project.

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<sup>23</sup> XEI is not a proper respondent in this proceeding as XEI is not an operating public utility and will not own any of the assets in question. XEI is not directly participating in the Twin Cities – La Crosse Project. As such, among other procedural infirmities, Respondent XEI is not appropriately a respondent providing an additional reason to dismiss the Complaint.

<sup>24</sup> The other utility operating company subsidiaries of Xcel Energy Inc. are Public Service Company of Colorado and Southwestern Public Service Company.

<sup>25</sup> The exact title of the Interchange Agreement is the “Restated Agreement to Coordinate Planning and Operations and Interchange Power and Energy between Northern States Power Company (Minnesota) and Northern States Power Company (Wisconsin).” The most recent annual update to the Interchange Agreement formula rates was accepted for filing in Docket No. ER12-1348-000, delegated Letter Order (May 23, 2012).

Respondent DPC is a not-for-profit generation and transmission electric cooperative headquartered in La Crosse, Wisconsin. DPC is owned by and provides the wholesale power requirements for 25 separate distribution cooperatives in southern Minnesota, western Wisconsin, northern Iowa, and northern Illinois. DPC also provides wholesale power requirements for 15 municipal utilities in Wisconsin, Minnesota, and Iowa. DPC is also a transmission owning member of MISO that owns and operates electric transmission facilities subject to the functional control of MISO. DPC is a participant in the Project. DPC is not Commission-jurisdictional.

Respondent WPPI is a not-for-profit regional municipal power company serving 51 customer-owned electric utilities in Wisconsin, Iowa, and the Upper Peninsula of Michigan. WPPI develops and owns generation, negotiates and holds power purchase agreements, and arranges transmission service and congestion protection on behalf of its member utilities. All of WPPI's members and their customers are located within the MISO footprint. WPPI is also a market participant in the MISO energy markets. WPPI is a participant in the Project.

Respondent MISO is a Commission-approved Regional Transmission Organization<sup>26</sup> ("RTO") that is, *inter alia*, responsible for administering the regional transmission planning provisions of its Tariff. MISO is responsible for analyzing and finalizing transmission expansion plans necessary to meet the needs of the MISO Transmission System.<sup>27</sup>

Respondent MRO is a non-profit organization dedicated to ensuring the reliability and security of the bulk power system in the north central region of North America, including parts of both the United States and Canada. MRO is one of eight Regional Entities in North America

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<sup>26</sup> *Midwest Independent Transmission System Operator, Inc.*, 97 FERC ¶ 61,326 (2001), *order on reh'g and compliance, Midwest Independent Transmission System Operator, Inc.*, 103 FERC ¶ 61,169 (2003).

<sup>27</sup> MISO Tariff, Attachment FF, Section V.

operating under authority through a delegation agreement with NERC<sup>28</sup> and in Canada through arrangements with provincial regulators. The primary purpose of MRO is to ensure compliance with NERC reliability standards and perform regional assessments of the grid's ability to meet the demands for electricity. NSPW, NSPM, GRE, DPC, and WPPI are all registered entities within the MRO region and subject to MRO reliability standards compliance jurisdiction.

Complainant CETF asserts that it is a coalition actively opposing the permitting, construction, and operation of the CapX2020 Group 1 Projects in Minnesota and Wisconsin. Complainant CETF claims that it represents the concerns of citizens who question the need for these particular high voltage power lines, and who support clean, sustainable, locally-generated power sources.<sup>29</sup>

Complainant SOUL claims to be a grassroots organization whose mission is to promote efficient and responsible management of electrical power for the public good, while protecting the natural, social, and economic environments and citizens of southwest Wisconsin.<sup>30</sup>

## **B. The Twin Cities – La Crosse Project**

The Twin Cities – La Crosse Project consists of a 345 kV transmission line from the new Hampton Substation (near the Twin Cities) to the North Rochester Substation (near Rochester, Minnesota) and terminating at the new Briggs Road Substation (near La Crosse, Wisconsin) with a new 161 kV line between the North Rochester and Chester Substations and a new 161 kV line between the North Rochester Substation and the Northern Hills Substation. The Twin Cities –

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<sup>28</sup> *Delegation Agreement Between the North American Electric Reliability Corporation and Texas Regulatory Entity, et al.*, 119 FERC ¶ 61,232 (2007); *North American Electric Reliability Corporation*, Docket No. RR12-9-000, Letter Order (June 25, 2012) (approving amendments to Delegation Agreement with MRO).

<sup>29</sup> Citizens Energy Task Force, About, available at <http://cetf.us/about/>.

<sup>30</sup> S.O.U.L. of the Kickapoo, About Us, available at <http://soulofthekickapoo.org/about%20us.html>.



La Crosse Project is one of the four foundational transmission expansions that comprise the CapX2020 Group 1 Projects.<sup>31</sup>

The Twin Cities – La Crosse Project was approved by MISO as an Appendix A project<sup>32</sup> in its 2008 regional transmission plan, MTEP08.<sup>33</sup> MISO designated Xcel Energy (NSPM and NSPW) and Respondents DPC and WPPI as well as RPU and SMMPA as the owners of the Twin Cities – La Crosse Project, consistent with agreements among the owners.<sup>34</sup>

In 2007, NSPM and GRE, on behalf of themselves and the other utilities participating in the CapX2020 Initiative,<sup>35</sup> sought a Certificate of Need (“CON”) from the Minnesota Public Utilities Commission (“MPUC”) for the three CapX2020 345 kV projects, including the Minnesota portion of the Twin Cities – La Crosse Project.<sup>36</sup> Complainant CETF intervened and fully participated in that proceeding advocating against the MPUC granting a CON.<sup>37</sup> In 2009, the MPUC granted a CON for the Twin Cities – La Crosse Project.<sup>38</sup> Complainant CETF

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<sup>31</sup> The other Group 1 Projects are (1) a 68 mile long, 230 kV transmission line from Bemidji to Grand Rapids in Minnesota (the “Bemidji – Grand Rapids Project”); (2) a 250 mile long, 345 kV transmission line from Fargo, North Dakota to Monticello, Minnesota (the “Fargo – Monticello Project”); and (3) a 270 mile long, 345 kV transmission line from Brookings County, South Dakota to the Twin Cities (the “Brookings – Twin Cities Project”).

<sup>32</sup> “Appendix A projects have been justified as the preferred solution to an identified need and have been approved by the Transmission Provider Board.” MISO Transmission Planning BPM-020-r6 at p. 18.

<sup>33</sup> MTEP08 at p. 184.

<sup>34</sup> MTEP08, Appendix A, Facilities Tab at lines 892–99.

<sup>35</sup> The CapX2020 Transmission Capacity Expansion Initiative is a consortium of eleven investor-owned, cooperative and municipal entities that have, since 2004, engaged in collaborative planning, permitting, engineering, development, and construction of nearly 700 miles of new 345 kV and 230 kV transmission facilities being constructed (or proposed to be constructed) in Minnesota, Wisconsin, North Dakota, and South Dakota at an expected cost of approximately \$2 billion. In addition to Respondent Utilities, RPU, and SMMPA, the other entities participating in the CapX2020 Initiative are Central Minnesota Municipal Power Agency, Minnesota Power, Minnkota Power Cooperative, Missouri River Energy Services, and Otter Tail Power Company.

<sup>36</sup> *Minnesota CON Proceeding*, Application (Aug. 16, 2007).

<sup>37</sup> *Minnesota CON Proceeding*, ORDER GRANTING INTERVENTION TO CITIZENS ENERGY TASK FORCE AND MIDWEST ISO, STAYING DEADLINE TO FILE DIRECT TESTIMONY AND SCHEDULING PREHEARING CONFERENCE (Apr. 22, 2008).

<sup>38</sup> Minnesota CON.

appealed the MPUC's grant of the CON.<sup>39</sup> The Minnesota Court of Appeals upheld the MPUC order.<sup>40</sup>

NSPM then sought a Minnesota Route Permit from the MPUC.<sup>41</sup> Organizations represented by Complainants' counsel intervened in the Minnesota Route Permit proceeding and unsuccessfully sought to prevent the grant of a Route Permit for the Project.<sup>42</sup> In May 2012, the MPUC granted a Route Permit to NSPM.<sup>43</sup>

In 2011, NSPW and Respondents WPPI and DPC sought a Certificate of Public Convenience and Necessity ("CPCN") from the Public Service Commission of Wisconsin ("PSCW") for the Wisconsin portion of the Twin Cities – La Crosse Project.<sup>44</sup> Respondent CETF intervened and actively participated in the proceeding advocating against the PSCW granting a CPCN.<sup>45</sup> On May 30, 2012, the PSCW issued the CPCN to NSPW, WPPI, and DPC.<sup>46</sup> Respondent CETF appealed the PSCW's grant of a CPCN.<sup>47</sup> The appeal was dismissed.<sup>48</sup>

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<sup>39</sup> *In re Application of Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for Certificates of Need for the CapX 345-kV Transmission Projects*, Nos. A09-1646, A09-1652, 2010 WL 2266138 (Minn. Ct. App. June 8, 2010).

<sup>40</sup> *Id.*

<sup>41</sup> *See In re Application for a Route Permit for the CapX2020 Hampton-Rochester-La Crosse High Voltage Transmission Lines*, MPUC Docket No. E-002/TL-09-1448 ("*Minnesota Route Permit Proceeding*").

<sup>42</sup> In the Minnesota Route Permit Proceeding, counsel for Complainants represented "NO CAPX 2020" and "United Citizens Action Network" or "U-CAN." *Minnesota Route Permit Proceeding*, Petition to Intervene by NO CAPX 2020 and U-CAN (Feb. 23, 2010).

<sup>43</sup> *Minnesota Route Permit Proceeding*, ORDER ISSUING ROUTE PERMIT AS AMENDED (May 30, 2012).

<sup>44</sup> Wisconsin CPCN.

<sup>45</sup> *Wisconsin CPCN Proceeding*, Petition to Intervene and Notice of Appearance of Citizens Energy Task Force (July 5, 2011).

<sup>46</sup> Wisconsin CPCN.

<sup>47</sup> *No CapX2020 & Citizens Energy Task Force v. Public Service Commission of Wisconsin*, No. 12-CV-3328, slip op. (Dane Cnty. Cir. Ct. Oct. 27, 2012).

<sup>48</sup> *Id.*

Construction on the Twin Cities – La Crosse Project has begun, with a planned in-service date of 2015, at an estimated cost of approximately \$500 million.

#### **IV. ANSWER**

##### **A. The Complaint is Deficient**

The Complaint should be denied on the merits and dismissed as procedurally infirm. Complainants fail to meet the Commission’s minimum requirements and have submitted a Complaint that is substantively and procedurally deficient, untimely, and moot. The Commission has recognized the numerous challenges to the development of electric transmission infrastructures, especially a project that will cross state lines. The Twin Cities – La Crosse Project has received all required state regulatory approvals after a multi-year process, and also received full MISO review in MTEP08. Complainants (or their counsel) actively participated in the state proceedings, received full procedural due process, and the MPUC and PSCW granted the required regulatory approvals over Complainants’ opposition. By denying the Complaint, the Commission can support its longstanding policy initiatives regarding construction of additional transmission facilities by removing the potential for any “cloud” over the project now that financing and construction are underway.

##### **1. The Complaint is Substantively Deficient**

The Commission has set forth the standard of review for a complaint. “[R]ather than bald allegations, [complaining parties] must make an adequate proffer of evidence including pertinent information and analysis to support its claims.”<sup>49</sup> The instant Complaint falls short of this minimum standard.

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<sup>49</sup> *Illinois Municipal Electric Agency v. Central Illinois Public Service Company*, 76 FERC ¶ 61,084 at 61,482 (1996).

The Complaint makes bald allegations that the Twin Cities – La Crosse Project violates applicable transmission planning standards.<sup>50</sup> The Complaint fails to provide any evidence or supporting analysis to meet the required burden. The Complaint makes no credible showing of how any of the Respondent Utilities have actually violated any of the specific planning standards identified in the Complaint.<sup>51</sup> Complainants provide no affidavits by qualified electrical engineers interpreting the studies cited by the Complaint; rather, the Complaint recites that the Twin Cities – La Crosse Project will create “instability”<sup>52</sup> without explaining the nature of the “instability,” how such “instability” violates the identified NERC planning standards, or how the Twin Cities – La Crosse Project is the cause of such “instability.”

Reliance on press releases and out-of-context quotations from selective studies does not cure this fundamental deficiency. Other than making general accusations, the Complaint provides no credible technical or engineering analysis from any of the quoted studies that links the selective quotations to the claimed violation of applicable NERC planning standards. In fact, the Complaint ignores statements in the same studies that contradict the allegations that form the basis of the Complaint.

For example, after quoting the Corridor Study and RES Update at length, the Complaint alleges that “[t]he proposed and approved build out would not work as proposed, and instead of

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<sup>50</sup> Complaint at p. 8.

<sup>51</sup> Complainants, in fact, have failed to justify how each of the Respondent Utilities are in violation of the applicable planning standards. For example, Respondent Utility GRE is not a participant in the Twin Cities – La Crosse Project and was not a participant in the study work which was developed to justify the need for the Project.

<sup>52</sup> *See, e.g.* Complaint at p. 13 (claiming that “system instability in adding a line to La Crosse is verified in other documents and in testimony in the Wisconsin CPCN proceeding” without providing the documentation or even a citation to such documentation).

improving the system, it put it at risk and did not deliver the espoused ... benefits.”<sup>53</sup> There is no link between the quotations from the studies and the allegation.

Complainants make other serious allegations with no support. They assume that Respondent Utilities acted improperly and withheld information during the state regulatory approval process for the Twin Cities – La Crosse Project.<sup>54</sup> However, the Complaint provides no evidence to support this claim. Further, the Complaint asserts that the planning for the Twin Cities – La Crosse Project violates the National Environmental Policy Act (“NEPA”) without identifying how this issue is within the Commission’s jurisdiction or specifically identifying the violation, or how the Commission could provide a remedy.<sup>55</sup>

## **2. The Complaint is Procedurally Deficient**

The Commission’s Rules of Practice and Procedure require Complainants to both identify how the complained of actions affect Complainants<sup>56</sup> and to make a good faith effort to quantify the financial impact on Complainants.<sup>57</sup> Respondent Utilities cannot identify statements in the instant Complaint that satisfy these requirements. Consequently, the Complaint fails to state a cognizable claim<sup>58</sup> and to “[e]xplain how the action or inaction violates applicable statutory

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<sup>53</sup> Complaint at p. 15.

<sup>54</sup> Complaint at p. 10.

<sup>55</sup> Complaint at pp. 15, 24.

<sup>56</sup> 18 C.F.R. § 385.206(b)(3) (2012) (requiring a complaint “[s]et forth the business, commercial, economic or other issues presented by the action or inaction as such relate to or affect the complainant”).

<sup>57</sup> 18 C.F.R. § 385.206(b)(4) (2012) (requiring a complaint “[m]ake a good faith effort to quantify the financial impact or burden (if any) created for the complainant as a result of the action or inaction”).

<sup>58</sup> Respondent Utilities are cognizant that Section 306 of the Federal Power Act (“FPA”) (16 U.S.C. § 825e (2012)) provides for broad standing for any “person” to bring a complaint to the Commission for the violation of the FPA. However, broad standing to file a complaint does not overcome the instant Complaint’s significant deficiencies as described in this Answer. Further, to the extent that Complainants are merely seeking to impact the location of the Twin Cities – La Crosse Project, the use of Rule 206 is inappropriate. *Californians for Renewable Energy, Inc. v. California Independent System Operator Corporation*, 117 FERC ¶ 61,072 at PP 8–10 (2006) (dismissing complaint against “decision to approve interconnection to the transmission grid of the generation project ... [when complainants] main concern appears to be with the location of the proposed generation project and its impact on neighboring communities”).

standards or regulatory requirements”<sup>59</sup> either with evidence or by providing the minimum required information.<sup>60</sup>

Further, Complainants did not serve the Complaint on the appropriate individuals as called for by the Commission’s rules.<sup>61</sup> Corporate officials for all Respondents except WPPI are available on the Commission’s website.<sup>62</sup> Complainants make no showing of any effort to comply with the Commission’s rules.<sup>63</sup> Nor was service timely.<sup>64</sup> Complainants have not shown good cause why they were unable to comply with this requirement.

On these procedural deficiencies alone, the Commission should deny the Complaint.

### **3. The Complaint is Untimely and Moot**

The Complaint takes issue with MISO’s analysis culminating in MTEP08<sup>65</sup> and the supporting study work for a project that has been planned for many years. To make their case, Complainants rely on a series of studies published at least four years ago.<sup>66</sup> Complainants “should have advanced this argument during the planning process, when MISO actively engaged

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<sup>59</sup> 18 C.F.R. § 385.206(b)(2) (2012).

<sup>60</sup> The Complaint is replete with other errors as well. Complainants should have full knowledge of the relevant parties due to their participation in nearly all of the relevant state proceedings and their counsel’s active participation in other related proceedings on behalf of other organizations. Yet, the Complaint names GRE as a respondent even though Respondent GRE is neither an owner of the Twin Cities – La Crosse Project nor a participant in the underlying study efforts in support of the Project. Further, the Complaint fails to name SMMPA or RPU, who are owners of the Twin Cities – La Crosse Project, participated in the study efforts supporting the need for the Project, and are indispensable parties. Ultimately, the Complaint fails to comply with 18 C.F.R. §§ 385.206 (b)(7), (b)(8), (b)(9), and (c). Complainants have also failed to demonstrate good cause for the Commission to utilize its discretion to waive any of these fundamental requirements under its Rules of Practice and Procedure. 18 C.F.R. § 385.101 (2012).

<sup>61</sup> Complaint at Certificate of Service, provided as Attachment G.

<sup>62</sup> <http://www.ferc.gov/docs-filing/corp-off/electric.asp>.

<sup>63</sup> 18 C.F.R. §§ 385.206(c); 2010 (2012).

<sup>64</sup> *Id.*

<sup>65</sup> *See* Complaint at pp. 19–23.

<sup>66</sup> *See* Complaint at pp. 13–17.

with stakeholders to develop regional expansion plans.”<sup>67</sup> The Commission has denied complaints on this basis (among others) and should do so here.<sup>68</sup> If Complainants are allowed to challenge MISO’s planning from 2008 that lays the foundation for all future planning cycles, “MISO would be forced to delay subsequent planning cycles until all facilities in the previous planning cycle were constructed and placed in service.”<sup>69</sup> The Commission should not allow this outcome.

In addition, as explained above, the MPUC granted a CON for the project, and the PSCW granted a CPCN for the project, and the state appellate reviews of those state commission orders have been completed.<sup>70</sup> This Commission should not countenance the collateral attack on those state commission orders authorizing the construction of project.<sup>71</sup>

The Complaint is also moot. Even assuming any problem with MTEP08, MISO has corrected it by having approved (in MTEP11) the next increment of transmission expansion that even Complainants agree addresses their concerns, namely the La Crosse – Madison Line.<sup>72</sup> Consequently, the Commission should dismiss the Complaint as moot.<sup>73</sup>

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<sup>67</sup> *American Transmission Company LLC v. Midwest Independent Transmission System Operator, Inc. and Xcel Energy Services Inc., Northern States Power Company, a Wisconsin corporation, and Northern States Power Company, a Minnesota corporation*, 142 FERC ¶ 61,090 at P 53 (2013) (“ATC Order”) (deferring to MISO because complainant did not bring its claim during consideration of MTEP08).

<sup>68</sup> *Id.* The Commission recognizes the equitable doctrine of laches. *Jack J. Grynberg v. Rocky Mountain Natural Gas Company*, 90 FERC ¶ 61, 247 at 61,826 (2000); *Texaco Refining and Marketing, Inc. et. al. v. SFPP, L.P., et. al.*, 99 FERC ¶ 63,009 at P 19 (2002); *see also Cincinnati Gas and Electric Company*, 59 F.P.C. 1091, 1092 (1977).

<sup>69</sup> ATC Order at P 55.

<sup>70</sup> *See supra* at pp. 9–10.

<sup>71</sup> *See, e.g., New England Conference of Public Utilities Commissioners, Inc. v. Bangor Hydro-Electric Company, et al.*, 135 FERC ¶ 61,140 at p 27 (2011) (“A collateral attack is ‘[a]n attack on a judgment in a proceeding other than a direct appeal’ and is generally prohibited.”) (*citing Wall v. Kholi*, 562 U.S. \_\_\_\_\_, 131 S. Ct. 1278, 179 L.Ed.2d 252, 2011 U.S. LEXIS 1906 at \*12 (2011)).

<sup>72</sup> Complaint at p. 24; Midwest Independent Transmission System Operator, Inc., MISO Transmission Expansion Plan 2011 (“MTEP11”), Appendix A, Project Tab at line 142, *available at* <https://www.midwestiso.org/Planning/TransmissionExpansionPlanning/Pages/MTEP11.aspx> (approving the La Crosse – Madison Line). For additional information with respect to the La Crosse – Madison Line, see Answer of Xcel Energy Services Inc., Northern

For these reasons, the Complaint fails to make a cognizable claim and the Complaint should be denied.

**B. The Complaint is Without Merit**

As discussed in the attached Affidavit of Mr. Daniel P. Kline, the Twin Cities – La Crosse Project will not cause instability. The study efforts of the applicable Respondent Utilities, in which Mr. Kline participated, fully comply with all applicable NERC reliability standards. MISO’s independent analysis of the project in MTEP08 also fully complied with applicable planning standards. The Complaint misunderstands the role of the MRO with respect to system reliability. The MRO has complied with its mandate as a Regional Entity because the study efforts supporting the Twin Cities – La Crosse Project are compliant with the standards the MRO is charged to uphold.

The Complaint erroneously relies on studies intended to identify the next increment of transmission expansion needed to accommodate additional generation coming on-line so that Respondent Utilities can meet their later year renewable energy requirements (the Corridor Study, RES Update, CVS, and WWTRS). These studies surveyed facilities that would be added to the transmission system after the Twin Cities – La Crosse Project (and, as such, did not directly study the impact of the Twin Cities – La Crosse Project) in order to meet renewable energy procurement requirements from 2016 – 2025. Complainants also rely on a study that supports the construction of the Twin Cities – La Crosse Project in a 345 kV configuration (Supplemental Need Study). But in the end, the Complaint fails to identify any study that calls

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States Power Company, a Wisconsin corporation, and Northern States Power Company, a Minnesota corporation, Docket No. EL13-9-000 at p. 9 (Oct. 22, 2012).

<sup>73</sup> See e.g., *Pioneer Transmission, LLC v. Northern Indiana Public Service Company and Midwest Independent Transmission System Operator, Inc.*, 140 FERC ¶ 61,057 at P 1 (2013) (dismissing as moot the complaint against MISO).



into question the performance of the Twin Cities – La Crosse Project as an addition to the system as it exists today.

## **1. Compliance with Planning Standards**

The Complaint asserts an alleged violation of NERC Transmission Planning criteria FAC-002-1, TPL-001-0.1, TPL-001-2, TPL-001-3 and TPL-001-4.<sup>74</sup> The TPL standards require that the transmission system be able to operate “to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services at all Demand levels over the range of forecasted demands” under certain conditions;<sup>75</sup> that planning for the system meets certain additional requirements; and that such planning is performed pursuant to appropriate planning models.<sup>76</sup> FAC-002-1 requires that new additions to the transmission system comply with the TPL standards. All planning work for the Twin Cities – La Crosse Project meets applicable NERC planning standards and the Complaint fails to demonstrate otherwise.

### **a. Project Studies**

The Twin Cities – La Crosse Project is driven by local load serving needs in the Rochester, Minnesota and La Crosse, Wisconsin areas. The need, and opportunity, to develop the Twin Cities – La Crosse Project was first established in the Southeastern Minnesota – Southwestern Wisconsin Reliability Enhancement Study (“TC-Lax Study”) in 2006.<sup>77</sup> This study was prepared by licensed professional engineers<sup>78</sup> prior to any NERC planning standards

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<sup>74</sup> Complaint at p. 8.

<sup>75</sup> Standard TPL-001-0.1

<sup>76</sup> Standard TPL-001-2; 001-3; 001-4.

<sup>77</sup> Southeastern Minnesota – Southwestern Reliability Enhancement Study, Final Copy, Transmission Analysis for Southeastern Minnesota and Southwestern Wisconsin (Mar. 13, 2006) (attached hereto as Attachment H).

<sup>78</sup> TC-Lax Study at certification pages. Respondent Utilities note that Complainants have not identified any licensed engineers who support their claims.

becoming mandatory<sup>79</sup> but was compliant with the then-voluntary standards.<sup>80</sup> The TC-Lax Study identified load serving needs in the Rochester, Minnesota area due to load growth needs<sup>81</sup> and in the La Crosse, Wisconsin area due to a pre-existing condition within the local transmission system.<sup>82</sup> The Rochester and La Crosse metropolitan areas are the largest load centers in the upper Midwest region not currently served by any significant 345 kV system. The TC-Lax Study confirmed that “due to the simultaneous needs in both areas that a unique opportunity exists to construct a new 345 kV source which is more economical ... than constructing two sets of 161 kV facilities.”<sup>83</sup> The study also recognized that the Twin Cities – La Crosse Project would also be a key foundational facility for future transmission expansion.<sup>84</sup>

The Complaint makes no mention of this study, the primary study relied upon to establish the need for the 345 kV facilities and one that actually does assess the reliability impact of the Twin Cities – La Crosse Project. Nor does the Complaint identify how this study violates any planning standards. Notwithstanding this omission, the TC-Lax Study was sufficiently thorough that it explicitly identified, studied, and recommended the radial nature of the Twin Cities – La Crosse Project as appropriate to reliably meet the load serving needs identified.<sup>85</sup> This underlying study effort was sound and was sufficient to support the MPUC issuance of a Certificate of Need for the Twin Cities – La Crosse Project over Complainants’ objections.<sup>86</sup>

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<sup>79</sup> See TC-Lax Study at p. 16.

<sup>80</sup> Kline Affidavit at p. 13.

<sup>81</sup> TC-Lax Study at p. 8.

<sup>82</sup> *Id.* at p. 66.

<sup>83</sup> *Id.* at p. 1.

<sup>84</sup> *Id.*

<sup>85</sup> *Id.* at Appendix C.

<sup>86</sup> Minnesota CON.

**b. MTEP08**

MISO performed an independent evaluation of the Twin Cities – La Crosse Project when it approved it as an Appendix A project<sup>87</sup> in MTEP08.<sup>88</sup> MISO’s MTEP08 analysis confirmed the outcome of the TC-Lax Study finding that the Twin Cities – La Crosse Project “extends the 345 kV transmission system support to growing load areas of Rochester, Minnesota and La Crosse, Wisconsin. Each of these areas has been experiencing load growth that will outstrip the ability of the existing lower voltage systems to reliably support the loads.”<sup>89</sup>

In its MTEP08 analysis, MISO meticulously documented how its study efforts ensured compliance with all applicable NERC standards.<sup>90</sup> MTEP08 describes in great detail how MISO’s planning efforts address each and every applicable reliability requirement.<sup>91</sup> MTEP08 also describes in great detail the development of planning criteria and monitored elements,<sup>92</sup> baseline models,<sup>93</sup> the contingencies examined,<sup>94</sup> load deliverability analysis,<sup>95</sup> and mitigation plan development.<sup>96</sup> This is a clear demonstration of compliance with applicable reliability standards.

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<sup>87</sup> Appendix A projects are those that have been recommended by MISO staff and approved by the MISO Board of Directors to be implemented by the designated MISO Transmission Owner. MTEP08 at p. 154.

<sup>88</sup> MTEP08 at p. 154.

<sup>89</sup> *Id.* at p. 6.

<sup>90</sup> *Id.* at p. 186.

<sup>91</sup> *Id.* at pp. 186–89.

<sup>92</sup> *Id.* at p. 190.

<sup>93</sup> *Id.* at pp. 191–92.

<sup>94</sup> *Id.* at p. 193.

<sup>95</sup> *Id.* at p. 194.

<sup>96</sup> *Id.* at p. 195.

The Complaint fails to challenge MISO's underlying analysis and instead takes issue with the fact that the Twin Cities – La Crosse Project has been found to have significant economic benefits.<sup>97</sup> This is insufficient to show a violation of any applicable NERC planning standard.

**c. Supplemental Need Study**

The Supplemental Need Study was prepared to supplement the application for a Wisconsin CPCN, and was submitted by NSPW and Respondents DPC and WPPI to the PSCW.<sup>98</sup> The Supplemental Need Study was prepared in compliance with all applicable reliability standards<sup>99</sup> and refreshed the preceding study work performed in support of the Project. The study indicated that the Twin Cities – La Crosse Project was still the most economic overall transmission solution to meet the load serving needs of the Rochester and La Crosse areas while providing a key foundational facility for future contemplated transmission expansion. Importantly, the Supplemental Need Study indicated that load levels that could impact reliability in the La Crosse area had been reached<sup>100</sup> and that the load levels in the Rochester area were sufficiently high as to create concern during single contingency events.<sup>101</sup> These findings confirmed the continuing need for the Project notwithstanding the unsupported assertions in the Complaint indicating otherwise.<sup>102</sup>

The Supplemental Need Study analyzed alternative, lower-voltage configurations for the Twin Cities – La Crosse Project<sup>103</sup> and concluded that the 345 kV configuration was superior. The Supplemental Need Study also made clear that while a 345 kV configuration will enhance

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<sup>97</sup> See Complaint at pp. 21–23.

<sup>98</sup> Supplemental Need Study at p. 1.

<sup>99</sup> Kline Affidavit at p. 14.

<sup>100</sup> Supplemental Need Study at p. 31.

<sup>101</sup> *Id.* at p. 36.

<sup>102</sup> Complaint at p. 12.

<sup>103</sup> Supplemental Need Study at pp. 39–54.

the benefits of regional build-out, the Project is needed even if those additional facilities are never built:

The 345 kV Project is needed to meet the identified local and regional needs regardless of whether additional facilities are constructed to the east. However, it is recognized that additional high voltage connections to La Crosse will provide additional electrical system benefits. The 345 kV Project would enhance those system benefits.<sup>104</sup>

As demonstrated, the planning efforts for the Twin Cities – La Crosse Project were and are fully compliant with all applicable planning standards. The Complaint does not establish that such planning work has not been performed as required nor that the Twin Cities – La Crosse Project, when placed in-service, will not perform as planned.

## **2. Unrelated Study Efforts**

The Twin Cities – La Crosse Project is not linked to system instability and Respondent Utilities have not asserted otherwise. In spite of this, the Complaint asserts that “[t]he link between the CapX2020 Hampton-La Crosse transmission project and system instability is an electrical fact admitted to by the Applicants in a press release and various documents including electrical studies.”<sup>105</sup> These allegations appear to be based on a misunderstanding of the Corridor Study, RES Update, WWTRS, and the CVS, which all assume the Twin Cities – La Crosse Project in their base case or recommend its construction.<sup>106</sup>

These studies were undertaken to identify the next increment of transmission build-out to be constructed after the Twin Cities – La Crosse Project is placed in service. The Corridor Study, RES Update, and CVS were performed to identify additional transmission investments that, depending on assumptions, may be needed to accommodate the new generation necessary to

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<sup>104</sup> *Id.* at p. 55 (emphasis added).

<sup>105</sup> Complaint at p. 9.

<sup>106</sup> *See* Corridor Study at p. 11; RES Update at p. 16; WWTRS at p. 9; CVS at pp. 37, 51.

meet Minnesota’s renewable energy standards between 2016 and 2025.<sup>107</sup> The WWTRS was undertaken to identify transmission facilities that would support reliability in western Wisconsin in the 2018 time-frame, after the Twin Cities – La Crosse Project is expected to be placed in service. Complainants correctly note that all of these studies identify the La Crosse – Madison Line as a key additional transmission facility that is necessary to support the reliability of the transmission system several years in the future under a series of potential generation and transmission assumptions. However, Complainants are incorrect in their assertion that the Twin Cities – La Crosse Project cannot reliably operate without the La Crosse – Madison Line, as Complainants have not identified a study that demonstrates the existing system at existing export limits has reliability issues.

**a. Corridor Study**

The Complaint assumes that the Corridor Study stands for the proposition that the Twin Cities – La Crosse Project cannot reliably operate without extending the line to Madison.<sup>108</sup> Even a cursory reading of the Corridor study demonstrates the error in the Complaint. The study specifically makes clear that “[f]ollowing the addition of the Corridor upgrade [after the Twin Cities – La Crosse Project is in service] ... any future generation capacity additions will require a facility from La Crosse to the Madison, Wisconsin area.”<sup>109</sup> The “tipping point” identified by Complainants<sup>110</sup> will occur only after the system has added both (i) an additional 2000 MW of

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<sup>107</sup> Corridor Study at p. 1; RES Update at p. 1; CVS at p. 6.

<sup>108</sup> Complaint at pp. 13–15.

<sup>109</sup> Corridor Study and RES Update Companion Report at p. 10.

<sup>110</sup> Complaint at p. 14.

generation and (ii) the facilities recommended by the Corridor Study.<sup>111</sup> Nowhere in the Corridor Study is the performance of the Twin Cities – La Crosse Project at issue.

**b. RES Update**

Like the Corridor Study, the RES Update was performed to identify additional future incremental additions to the transmission system that would be needed to accommodate the additional generation needed to meet the Minnesota renewable energy standard.<sup>112</sup> A “key finding of the RES Update Study is that future generation development will be constrained beyond the levels contemplated by the BRIGO facilities, the CapX2020 Group 1 Facilities [including the Twin Cities – La Crosse Project], and the Corridor Upgrade.”<sup>113</sup> In other words, after the Twin Cities – La Crosse Project and even after the Corridor upgrades are both placed in service, additional transmission outlet will be needed to accommodate an additional 1600 MW of generation on top of that studied in the Corridor Study. The assertion that “[t]he proposed and approved build-out [of the Twin Cities – La Crosse Project] will not work as proposed” is not supported by the studies relied upon in the Complaint.<sup>114</sup>

**c. WWTRS**

The WWTRS seeks to identify the next increment of transmission additions after the Twin Cities – La Crosse Project is placed in service to ensure the long-term reliable operation of the transmission system. Like the other studies, the WWTRS assumes the Twin Cities – La Crosse Project in its base case model<sup>115</sup> and assumes significant generation additions to the

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<sup>111</sup> To Respondent Utilities’ knowledge, the upgrades contemplated by the Corridor Study are not currently planned to be constructed.

<sup>112</sup> Minn. Stat. § 216B.1691 (2012).

<sup>113</sup> Corridor Study and RES Update Companion Report at p. 11.

<sup>114</sup> Complaint at p. 15.

<sup>115</sup> WWTRS at p. 16.

transmission system in the 2018–2020 time-frame.<sup>116</sup> Nowhere does the WWTRS claim that without the future hypothetical generation facilities assumed in the WWTRS, the Twin Cities – La Crosse Project will cause voltage instability as alleged in the Complaint.<sup>117</sup> Instead, the WWTRS indicates that the Twin Cities – La Crosse Project “addresses the load serving needs in the Rochester and La Crosse areas.”<sup>118</sup>

**d. CVS**

The CVS is compliant with applicable planning standards<sup>119</sup> and identifies benefits of construction of the Twin Cities – La Crosse Project (along with the rest of the CapX Group 1 Projects) that were previously unknown.<sup>120</sup> The Complaint misconstrues the study.<sup>121</sup> That said, the CVS does recommend further study of the La Crosse – Madison Line to determine if it may be needed “but an operational study would be necessary in order to fully evaluate if Minnesota could handle the 2016 RES level of wind penetration with or without project.”<sup>122</sup> The WWTRS served as that further study and, as demonstrated, found that the Twin Cities – La Crosse Project meets the reliability needs for which it was developed.

In the end, Complainants misunderstand the purpose and results of the studies cited in the Complaint. As discussed in the Kline Affidavit and this Answer, the studies relied on by the

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<sup>116</sup> *Id.* at p. 13.

<sup>117</sup> Complaint at p. 15.

<sup>118</sup> *Id.* at p. 9.

<sup>119</sup> CVS at p. 18.

<sup>120</sup> *Id.* at p. 8.

<sup>121</sup> *See, e.g.*, Complaint at p. 17 (citing a discussion in the study regarding when investigation into additional scenarios to identify mitigation to system impacts should be abandoned, the “stopping point” for further inquiry as standing for the proposition that the system cannot support the Twin Cities – La Crosse Project); *but see* CVS at p. 39 (discussing parameters for when investigation into additional scenarios to identify mitigation to system impacts should be abandoned, *i.e.*, the “stopping point” for further inquiry).

<sup>122</sup> CVS at p. 54 (emphasis added).



MPUC and PSCW support the need for the Twin Cities – La Crosse Project as a stand-alone project, whether or not the next increment of transmission is built to the east.

## V. ADDITIONAL INFORMATION

### A. Admissions and Denials

Pursuant to Rule 213(c)(2) of the Commission’s Rules of Practice and Procedure,<sup>123</sup> to the extent practicable and to the best of Respondent Utilities present knowledge and belief:

1. Respondent Utilities deny:

(a) the link between the Twin Cities – La Crosse Project and system instability is an electrical fact, the Project was designed to cause system instability or any other allegation with respect to the Twin Cities – La Crosse Project and instability of the transmission system;

(b) Respondent Utilities admitted that the Twin Cities – La Crosse Project causes instability on the transmission system;

(c) any studies or other material facts were closely held and purposefully not disclosed in a timely manner;

(d) the Twin Cities – La Crosse Project will not perform as claimed without an extension to the east;

(e) any responsibility to “assure transmission grid security was overlooked, ignored, and circumvented”;

(f) Respondents Xcel Energy Inc. or WPPI are transmission owning members of MISO;

(g) “approval” of the Twin Cities – La Crosse Project is “a violation of NERC standards”;

(h) the Twin Cities – La Crosse Project causes, will cause, or would have caused any violation of any applicable NERC reliability standard, including, without limitation, FAC-002-1, TPL-001-0.1, TPL-001-2, TPL-001-3, and TPL-001-4;

(i) Respondent Utilities have been “deceptive in their planning to the detriment of ratepayers and municipalities”;

(j) Respondent Utilities “knew or should have known [that the Twin Cities – La Crosse Project] could put the system at risk”;

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<sup>123</sup> 18 C.F.R. § 385.213(c)(2) (2012).

(k) any transmission study “reveals that instead of relieving ‘congestion,’ [the Twin Cities – La Crosse Project] moves congestion to the end of the line, in La Crosse”;

(l) “a termination in Madison to attain capacity and ‘ensure reliable operation’ was a foundation assumption” in any planning for the Twin Cities – La Crosse Project; and

(m) any violation of NEPA.

2. Respondent Utilities admit:

(a) the Twin Cities – La Crosse Project was approved by MISO in MTEP08;

(b) the Commission has adopted NERC reliability standards as mandatory; and

(c) the Corridor Study and RES Update are the studies referred to in the April 3, 2009 press release cited by Complainants.

3. To the extent that any fact or allegation in the CETF/SOUL Complaint is not specifically admitted in this Answer, it is denied.

#### **B. Affirmative Defenses**

Respondent Utilities plead the following affirmative defenses to the Complaint:

1. The Complaint is a collateral attack on the CON and CPCN orders of the MPUC and PSCW, respectively.

2. The Complaint is substantively deficient and fails to support its allegation with required information and analysis.

3. The Complaint is procedurally deficient due to failure to comply with all of the requirements of Rule 206 of the Commission’s Rules of Practice and Procedure<sup>124</sup> and Complainants have failed to show good cause for the Commission to waive its procedural requirements.

4. The Complaint is untimely.

5. The Complaint is moot.

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<sup>124</sup> 18 C.F.R. § 385.206 (2012).

6. The Complaint does not include all indispensable parties as respondents, namely NSPM, NSPW, RPU, and SMMPA.

7. Respondent GRE is wrongly named as a respondent as it is not an owner or developer of the Twin Cities – La Crosse Project.

8. Respondent Xcel Energy Inc. is wrongly named as a respondent because it is not directly an owner or developer of the Twin Cities – La Crosse Project.

### **C. Resolution**

Pursuant to Rule 213(c)(4) of the Commission's Rules of Practice and Procedure,<sup>125</sup> the Commission should promptly deny and dismiss the CETF/SOUL Complaint.

### **D. Documents Provided**

In support of this Answer, Respondent Utilities provide the following additional documents which are attached to this Answer:

- Attachment A: Complainants' Press Release;
- Attachment B: Affidavit of Mr. Daniel P. Kline;
- Attachment C: Corridor Study & RES Update Companion Report, Corridor Study, and RES Update;
- Attachment D: Western Wisconsin Transmission Reliability Study;
- Attachment E: Capacity Validation Study;
- Attachment F: Supplemental Need Study;
- Attachment G: Complainants' Certificate of Service; and
- Attachment H: TC-Lax Study.

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<sup>125</sup> 18 C.F.R. § 385.213(c)(4) (2012).

## VI. CONCLUSION

For the foregoing reasons, Respondent Utilities respectfully request the Commission immediately dismiss or deny the Complaint.

Respectfully Submitted,

Dated: March 21, 2013

/s/ Michael C. Krikava

Michael C. Krikava

Zeviel Simpser

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ATTORNEYS FOR RESPONDENT  
UTILITIES

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on this 21 day of March 2013, I have served the foregoing document on all affected parties in accordance with the requirements of the Commission's Rules of Practice and Procedure.

*/s/ Zeviel Simpser* \_\_\_\_\_  
Zeviel Simpser

**ATTACHMENT A**

**COMPLAINANTS' PRESS RELEASE**

**FOR IMMEDIATE RELEASE:**

**FEDERAL COMPLAINT CLAIMS  
UTILITIES KNEW OF CAPX2020 GRID INSTABILITY PROBLEMS**

*Sparta, Wisconsin, February 28, 2013* Citizens Energy Task Force (CETF) and Save Our Unique Lands (SOUL) filed a complaint today with the Federal Energy Regulatory Commission (FERC) contending utilities knew of grid instability and reliability issues if the Minnesota-Wisconsin section of the CapX2020 high-voltage power line is added to the electric grid. The utilities' own studies and conclusions form the basis for the complaint.

The complaint names CapX2020 utilities Xcel Energy, Dairyland Power Cooperative, Great River Energy and Wisconsin Public Power Incorporated (WPPI) along with the Midwest Reliability Organization (MRO) and Midwest Independent System Operator (MISO). The first public evidence of utility and transmission planner knowledge of the issue is found in April 3, 2009 Xcel Energy press release stating, "Without a line to the east of Minnesota, the transmission system will reach a "tipping point" where reliability is compromised...."

According to attorney Carol Overland, who is filing the complaint, "Approval of a project known to cause grid instability violates reliability standards laid out by the National Energy Regulatory Commission (NERC) and adopted by FERC." Overland explains, "You can fix the stability risks by extending the 345 kV grid from La Crosse to Madison, but CapX2020 was approved independently, as a stand-alone transmission project, and on its own, it puts the system at risk."

CapX2020 is a radial line, which means it carries power in only one direction. This one-way flow brings a tremendous flow of electricity into the area without a corresponding outlet. According to Overland, "This creates an inherently unstable situation and reduces the flexibility of the system to recover from voltage changes, which in turn can cause system collapse."

The Wisconsin Public Service website states, "The current transmission grid includes not only transmission lines that run from power plants to load centers, but also from transmission line to transmission line, providing a redundant system that helps assure the smooth flow of power. If a transmission line is taken out of service in one part of the power grid, the power normally reroutes itself through other power lines to continue delivering power to the customer." This radial line lacks this built in redundancy to ensure smooth power flow. The Midwest Reliability Organization has taken no action on MISO's improper approval of the Hampton-La Crosse transmission line.

In addition to problems inherent in a one-way flow of electricity, the complaint points to troubles in not "uprating" the existing lower voltage grid to compensate for when the 345kV CapX line experiences faults. The larger overlay of extra high voltage transmission depends on low voltage systems' ability to handle the higher voltage capacity, and there's been no upgrading of the underlying system in this area to handle the extra power. While Minnesota is adding new lower voltage lines to support the higher voltage additions, Wisconsin has yet to act to bolster the lower voltage system.

**For further information  
please contact:**

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**ATTACHMENT B**

**AFFIDAVIT OF MR. DANIEL P. KLINE**



UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

Citizens Energy Task Force and	)	
Save Our Unique Lands	)	
	)	
Complainants	)	
	)	
v.	)	Docket No. EL13-49-000
	)	
Midwest Reliability Organization, Midwest	)	
Independent Transmission System Operator,	)	
Inc., Xcel Energy Inc., Great River Energy,	)	
Dairyland Power Cooperative, and WPPI	)	
Energy	)	
	)	
Respondents	)	
	)	

**AFFIDAVIT OF DANIEL P. KLINE, P.E.**

STATE OF MINNESOTA    )  
                                  ) ss  
COUNTY OF HENNEPIN   )

I, Daniel P. Kline, state under oath:

**Introductory Information**

1. My name is Daniel P. Kline and I am Manager, Regulatory Administration (Transmission) for Xcel Energy Services Inc. (“XES”) the service company subsidiary of Xcel Energy Inc. My curriculum vitae is attached as Schedule 1. I have more than 12 years experience in the electric utility industry.
2. My business address is 414 Nicollet Mall, Minneapolis, Minnesota 55401.
3. I hold a Bachelor of Science in electrical engineering from Iowa State University and a Master’s of Engineering from the University of Idaho. I am a licensed professional engineer in the State of Minnesota.
4. I am providing this affidavit in support of the Answer filed by Xcel Energy Services Inc. (“XES”), on behalf of its holding company parent Xcel Energy Inc. (“XEI”) and its operating company affiliates Northern States Power Company, a Minnesota corporation (“NSPM”), and Northern States Power Company, a Wisconsin corporation (“NSPW”, and collectively with XES, XEI and NSPM, “Xcel Energy”), Great River Energy

("GRE"), Dairyland Power Cooperative ("DPC") and WPPI Energy ("WPPI" and collectively with Xcel Energy, GRE, and DPC, "Respondent Utilities") in response to the March 1, 2013, Complaint ("Complaint") filed by Citizens Energy Task Force ("CETF") and Save Our Unique Lands ("SOUL," and collectively with CETF, "Complainants") in the above captioned proceeding. The purpose of my affidavit is to identify how the underlying study efforts of the CapX2020 Twin Cities – La Crosse Project are in compliance with all applicable North American Electric Reliability Corporation ("NERC") planning standards.

5. As Manager, Regulatory Administration, I am responsible for activities that relate to the regulatory compliance of Xcel Energy's transmission function. This includes managing transmission regulatory activities at the Federal Energy Regulatory Commission ("FERC" or the "Commission"); developing positions in a variety of FERC dockets involving transmission issues; and coordinating the Xcel Energy Operating Companies participation in their respective regional organizations, chiefly the Midwest Independent Transmission System Operator, Inc. ("MISO"), Southwest Power Pool, Inc. ("SPP"), and WestConnect. In addition to my duties at XES, I am also the Chair of MISO's Regional Expansion Criteria and Benefits ("RECB") Task Force, the stakeholder committee responsible for developing MISO's cost allocation policy. As part of this work, I have also been involved in the development and analysis of the rate treatment for new transmission facilities, including for those transmission facilities that will receive cost allocation treatment as Multi Value Projects ("MVP") under the MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff ("Tariff").
6. Prior to my current position, I was Senior Engineer, Regional Transmission Planning, for XES. As a Senior Engineer, my duties included coordinating the participation of all MISO Transmission Owners ("TO") in the MISO Planning Advisory Committee ("PAC"), which is the MISO Committee responsible for developing MISO's annual regional planning document, the MISO Transmission Expansion Plan ("MTEP"). The MTEP is the culmination of the regional planning process adopted pursuant to the Commission's Order No. 890, documented in Attachment FF of the MISO Tariff. In my role as Senior Engineer, my responsibilities included guiding contemplated transmission projects through the MISO transmission planning process and working for their inclusion in the MTEP. In addition, I assisted in preparation of the biennial transmission planning reports submitted by the Minnesota Transmission Owners ("MTO"), including NSPM, GRE and DPC, to the Minnesota Public Utilities Commission ("MPUC"). In both of these planning roles, I was required to ensure that the study efforts performed on behalf of any project complied with applicable NERC planning standards and that the addition of proposed transmission expansions would not violate NERC planning standards.
7. Through my employment with Xcel Energy, I have become familiar with the workings of transmission planning, generally, the MISO planning process, the history of development of transmission in the upper-Midwest and NERC planning standards.

## **Transmission Planning**

8. The overall goal of transmission planning is to ensure the reliable operation of the transmission system to meet the demand for electric power by end-use customers at reasonable cost. Planning involves a number of near- and long-term objectives, including planning for increased customer service requirements (often referred to as local load growth), taking into account generator interconnection and transmission service requests, assessing the need for system maintenance and upgrades, assessing ways to eliminate constraints on the system, and taking into consideration a utility's compliance with applicable policy and regulatory goals. Generally, transmission planning is an iterative process of ensuring that the electrical system under review can be operated in a reliable and economic fashion on an ongoing basis and that necessary upgrades are identified, studied, permitted and implemented in a timely fashion to ensure continued reliable operation.
9. To achieve these goals, transmission planners for utilities use sophisticated computer models that simulate the operational performance of the transmission grid under various scenarios. Typically, the planners attempt to determine how the system will perform under peak load and high transfer situations, although normal operating conditions and off-peak conditions are also examined. The planners also look at how the system will operate under contingency situations, such as when a transmission line or generation facility is taken out of service by a storm or other unexpected occurrence or during planned maintenance outages. In addition to the modeling results, utilities also have to take into account such factors as costs, environmental impacts, social impacts, and national standards, such as compliance with NERC mandatory reliability standards.
10. Transmission planning work is often documented in transmission planning studies. There are generally three categories of studies that transmission planners can create during the transmission planning process: Vision Studies, Mid-Term Studies and Specific Studies. Prior to approval, it is possible for a transmission project to be identified or studied in all three types of studies, only two of them, or only in a Specific Study.
11. Vision Studies look at long-range requirements and goals and include the following characteristics: a high level 50,000-foot review of the electrical system; a broad blue print for the future; a 10- to 25-year time horizon and very broad assumptions. Mid-Term Studies look at mid-term likely needs and have the following characteristics: 25,000-foot review of the electrical system; identification of possible future needs; a time horizon that generally exceeds the project development duration; and more certainty in assumptions. Specific Studies, which may include load-serving studies and interconnection studies, have the following characteristics: a short-term, 5,000-foot view of the electrical system; needs for a specific circumstance; a zero- to 10-year time horizon; and more certainty in assumptions.
12. I have reviewed all of the studies identified in the Complaint as well as those identified by Respondent Utilities in their Answer. I was personally involved in the preparation of several of the cited studies. Based on this personal knowledge and review and my knowledge of the transmission system in the Upper Midwest region, it is my expert

engineering opinion<sup>1</sup> that: (a) all of the studies identified in the Complaint and Answer are fully compliant with all applicable NERC planning standards; (b) none of the identified studies state, imply or conclude that the Twin Cities – La Crosse Project will violate any applicable NERC standards; (c) I am not aware of any evidence that suggests that the Twin Cities – La Crosse Project will not operate as planned or that it will cause a violation of any applicable NERC standard once it is placed in service; and (d) the Twin Cities – La Crosse Project does not require an extension from La Crosse to Madison to operate reliably.

### **Studies Supporting the Twin Cities – La Crosse Project**

13. The Southeastern Minnesota—Southwestern Wisconsin Reliability Enhancement Study (“TC-Lax Study”) is a Specific Study which was undertaken to identify the load serving needs in the Rochester, Minnesota and the La Crosse, Wisconsin areas. The TC-Lax Study identified the Twin Cities – La Crosse Project as the most economic and robust transmission solution to address the significant load serving needs in the areas studied. This study was prepared by licensed engineers prior to the NERC planning standards becoming mandatory. It is my expert opinion that the TC-Lax Study would have been compliant with the now mandatory NERC planning standards.
14. The CapX2020 Hampton – Rochester – La Crosse 345 kV Project Supplemental Need Study (“Supplemental Need Study”) refreshed the TC-Lax Study due to the passage of time between when the TC-Lax Study was performed and the further need review of the Twin Cities – La Crosse Project by the Public Service Commission of Wisconsin (“PSCW”). Like the TC-Lax Study, the Supplemental Need Study is a Specific Study which was undertaken to identify the load serving needs in the Rochester, Minnesota and La Crosse, Wisconsin areas. The Supplemental Need Study indicated that the load levels in the Rochester area were sufficiently high to create concern during single contingency events and that the La Crosse area had reached load levels requiring additional transmission infrastructure to mitigate reliability issues. The Supplemental Need Study also stated that the Twin Cities – La Crosse Project is needed to meet load serving needs regardless if additional facilities are ever installed to extend the Project to the Madison, Wisconsin area. It is my expert opinion that the Supplemental Need Study is compliant with all applicable NERC planning standards.

### **Other Studies**

15. The Southwest Twin Cities – Granite Falls Transmission Upgrade Study (“Corridor Study”) is a Mid-Term Study designed to identify the feasibility of upgrading certain 230 kV transmission facilities in central Minnesota to a 345 kV configuration so as to determine if such an upgrade would be appropriate to accommodate the significant additional generation needed for Minnesota electric utilities to meet their renewable energy standards.<sup>2</sup> The Corridor Study was commissioned by the Minnesota

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<sup>1</sup> My expert opinion in this paragraph and my opinions throughout this affidavit are in all cases “to a reasonable degree of engineering certainty.”

<sup>2</sup> 2007 Minn. Sess. Law Ch. 136.

Transmission Owners (“MTO”)<sup>3</sup> and I was a member of the core study team. The Corridor Study determined that the studied upgrades would be sufficient for Minnesota utilities to acquire generation projects to satisfy the 2016 Minnesota renewable energy standard requirements. The Corridor Study was performed in accordance with all applicable planning standards. It is my expert opinion that the Corridor Study is compliant with all applicable NERC planning standards.

16. The Minnesota RES Update (“RES Update”) was another study performed by the MTO group and for which I was a member of the core study team. The RES Update was undertaken as an additional Mid-Term Study to identify what facilities might be necessary to enable load serving utilities to meet the Minnesota renewable energy standard milestones after 2016. The RES Update identified a 345 kV transmission facility from La Crosse to Madison in Wisconsin that provides the greatest overall system benefits in the studied time frame. The RES Update was performed in accordance with all applicable planning standards. It is my expert opinion that the RES Update is compliant with all applicable NERC planning standards.
17. The Capacity Validation Study (“CVS”) was undertaken by the MTO group to “validate” the impacts that will occur with the addition of several new transmission facilities. In other words, the CVS was intended to “validate” the study work undertaken by various entities, including the MTO group, to ensure that the transmission additions would reliably provide the benefits identified in all of the other studies. The CVS recommended that the CapX2020 Group 1 lines, including the Twin Cities – La Crosse Project, be developed, followed by the upgrades contemplated by the Corridor Study and a line from La Crosse to Madison, Wisconsin. I have reviewed this study and it is my expert opinion that the study efforts complied with all applicable planning standards and that this study validates that the Twin Cities – La Crosse Project will not cause a violation of any applicable NERC reliability standards.
18. The Corridor Study, the RES Update, and the CVS were completed to fulfill certain study obligations placed upon Minnesota utilities in the 2007 Next Generation Energy Act, which established Minnesota’s state renewable energy standard.
19. The Western Wisconsin Transmission Reliability Study (“WWTRS”) was a Specific Study undertaken to analyze the reliability needs in the Western Wisconsin area in the 2018 to 2020 time frame. The study recommended a 345 kV transmission line from the La Crosse area to the Madison area to meet these reliability needs. The WWTRS was led by American Transmission Company, LLC with participation by DPC, Xcel Energy, ITC Midwest, GRE, Southern Minnesota Municipal Power Agency and MISO. I have reviewed the WWTRS and it is my expert opinion that the study complies with all applicable planning and NERC standards.

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<sup>3</sup> The MTO consists of: American Transmission Company; Central Minnesota Municipal Power Agency; DPC; East River Electric Cooperative; GRE; Hutchinson Utilities Commission; ITC Midwest, LLC; L&O Power Cooperative; Marshall Municipal Utilities; Minnkota Power Cooperative; Missouri River Energy Services; NSPM; Otter Tail Power Company; Rochester Public Utilities; Southern Minnesota Municipal Power Agency; and Willmar Public Utilities.

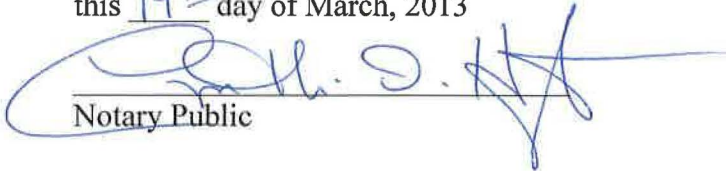
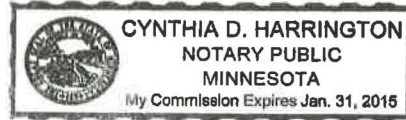
Further, Affiant sayeth not.



Daniel P. Kline, P.E.

Subscribed and sworn to before me

this 19<sup>th</sup> day of March, 2013

  
Notary Public

**SCHEDULE 1 TO AFFIDAVIT OF DANIEL P. KLINE**  
**CURRICULUM VITAE**

# Daniel Kline, P.E.

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- Summary**      **Licensed professional engineer with ten years' experience** in transmission planning, regulatory process, and project leadership ranging geographically from single cities to large multi-state regions with utilities across the country and around the world
- Education**      **Master of Engineering in Engineering Management** | University of Idaho | Moscow, ID  
**Bachelor of Science in Electrical Engineering** | Iowa State University | Ames, IA
- Experience**
- 02/11 to Present*      *Xcel Energy Services Inc.*      *Minneapolis, MN*  
**Manager, Regulatory Administration (Transmission)**
- Manage department responsible for oversight of federal transmission tariff policy
  - Oversee company's compliance with federal transmission regulations; identify weaknesses and develop plans to correct those weaknesses
  - Represent MISO utilities in regional cost allocation discussions as vice-chair of cost allocation task force
  - Develop relationships with neighboring utilities to help company meet its transmission needs
  - Negotiate transmission interconnection terms with neighboring utilities to further company transmission policy goals
  - Coordinate Xcel Energy involvement in regional organizations
  - Facilitate development of company policy on FERC Orders and develop interventions in FERC dockets
  - Participate in due diligence review of new transmission projects
  - Vice-Chair, MISO RECB Task Force, 2011
  - Chair, MISO RECB Task Force, 2012
- 04/09 to 02/11*      *Xcel Energy Services Inc.*      *Minneapolis, MN*  
**Senior Engineer, Regional Transmission Planning**
- Coordinate involvement of Xcel Energy planning department in regional cost allocation discussions; develop guiding principles, determine how those principles apply in the framework of regional discussions, and negotiate with other stakeholders to find common ground
  - Coordinate participation of all Midwest ISO transmission owners in Planning Advisory Committee
  - Represent Xcel Energy in discussions for Upper Midwest Transmission Development Initiative (UMTDI)
  - Oversee Xcel Energy participation in Strategic Midwest Area Renewable Transmission (SMART) Study; review study models, shape study assumptions, develop study alternatives
  - Manage Xcel Energy participation in regional transmission "seams" issues, including interface with utilities in Canada, North Dakota, South Dakota, and Wisconsin
  - Assess FERC rulings and provide input from planning into Company and transmission owner interventions
  - Participate in development of regulatory strategy, draft testimony, and testify before Minnesota Public Utilities Commission in line route proceeding for multi-state 345 kV line
  - Draft and review filings and responses to Federal Energy Regulatory Commission matters related to transmission planning, system reliability, and energy markets
- 02/06 to 04/09*      *Northern States Power Co. (Minnesota)*      *Minneapolis, MN*  
**Transmission Planning Engineer**
- Oversee completion of 10-year plan for Xcel Energy's entire Wisconsin service territory. Coordinate and focus efforts of other engineers to complete this work



- Manage study of upper Midwest region focused on identifying necessary electric transmission infrastructure to meet 2016 renewable energy standard milestone. Assist in developing necessary regulatory filings
- Lead the technical analysis and development of a 250-mile, 345 kV transmission line from Fargo, North Dakota to Monticello Generating Plant with capital expenditures of approximately \$500 million dollars and assist with necessary regulatory filings
- Guide projects to inclusion in Midwest ISO Transmission Expansion Plan (MTEP)
- Complete focused study to develop long-term planning solutions for two areas in Wisconsin; resulting projects represent approximately ten years and \$35 million worth of capital improvements
- Develop technical regulatory requirements for permit applications in Wisconsin
- Represent Xcel Energy at public meetings to increase awareness of and public involvement in the transmission planning process
- Review and respond to MRO Standards changes with respect to their effect on Xcel Energy
- Represent Xcel Energy to third-parties and the Midwest ISO during generation interconnection proceedings
- Analyze transmission projects being completed by outside utilities and their effect on Xcel Energy's transmission grid
- Perform analysis of requested transmission interconnections and report on their effect on the transmission network
- Coordinate implementation of projects with internal and external customers, including consultants, project managers, community members, and contractors
- Participate in review and markup of new regulations and interpretations of NERC and MRO system performance standards

*07/04 to 02/06*

*Open Systems International, Inc.*

*Plymouth, MN*

**Power Systems Engineer**

- Analyze customer requirements, created a product implementation plan for Power Systems applications on customer projects, took responsibility for implementing that plan
- Ensure the customer was thoroughly trained in the effective use of the applications they purchased
- Perform Factory Acceptance Testing with the customer
- Plan and implemented the proper commissioning strategy for the applications at a customer site after system installation, ensuring the complete implementation of the application products
- Act as a customer advocate by proposing software enhancements, monitoring software development, and advising OSI management of customer-desired features
- Manage development of Java-based power system applications by tracking and scheduling necessary software upgrades
- Create and verify power flow model for large, interconnected electrical utility
- Configure and tested a variety of applications, ranging from AGC to power flow (transmission and distribution) to geographical information systems
- Present training sessions and workshops to users both familiar with and new to OSI products
- Oversee implementation of software to integrate customer computer systems with Midwest ISO market dispatch program
- Review and comment on FERC filings related to Midwest ISO wholesale electricity market implementation

*07/03 to 07/04*

*Pacific Gas & Electric Company*

*San Francisco, CA*

**Associate Transmission Planning Engineer**

- Assess transmission grid weaknesses on ten-year horizon for four PG&E territories and

more than 5500 MW of customer load

- Assist with development of state permit filings for 20-mile urban 230 kV transmission line
- Review Nuclear Regulatory Commission voltage stability requirements and study long-term voltage stability in area around Diablo Canyon Nuclear Power Plant; recommend projects to address long-term deficiencies
- Correspond with California Independent System Operator (ISO) as point of contact for issues related to reliable system operation
- Propose and obtained funding for \$12 million 230/115 kV, 420 MVA transformer installation
- Present Transmission Grid Expansion Plan Proposal to a group consisting of ISO members, independent power producers, municipal utility representatives, engineering consultants, environmental groups, and consumer watch groups
- Conduct long-term voltage reliability study of Bay Area for various critical contingencies. Results of study were used to determine Bay Area transmission projects over ten year horizon.

*03/01 to 08/07*

*P & E Engineering Co.*

*Carlisle, IA*

**Electrical Engineer**

- Analyze FERC requirements on wind generation facilities and perform voltage and power flow analysis on 34.5kV and 24.9kV collector systems for wind farms in Iowa, North Dakota, Oklahoma, and New Mexico
- Model large fossil fuel power plant from 345kV level to 480V motor control centers to initiate coordination study for entire substation
- Conduct transmission planning study for municipal electrical utility resulting in suggested system enhancements and presentation to board of directors; analyze NERC standards, determine their applicability to customer system, and make project recommendations that ensure continued compliance with NERC standards

*05/00 to 01/03*

*MidAmerican Energy Company*

*Urbandale, IA*

**Energy Management System Associate**

- Prepare energy management system database for conversion to upgrades system
- Maintain energy management system at a high level of availability
- Develop and implement plan to update system mapboard showing real-time status of transmission lines and generators
- Review planned transmission system outages and participate in analysis of their applicability to MAPP and MRO standards
- Review recommended changes to NERC operational standards and requirements and analyze system's ability to meet those requirements

**Honors & Associations**

Eagle Scout Award Recipient

American Legion Boy's State Attendee

Member, Institute of Electrical and Electronics Engineers, 2003 to 2011

Senior Member, Institute of Electrical and Electronics Engineers, 2011 to Present

Author, "Conducting a Multi-Region Transmission Analysis", *IEEE Panel Presentation, 2011 General Meeting*