



**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

**COMMENTS AND RECOMMENDATIONS OF  
MINNESOTA DEPARTMENT OF COMMERCE  
ENERGY FACILITY PERMITTING STAFF**

DOCKET No. E002/TL-11-795

Date: March 11, 2013

EFP Staff: Ray Kirsch.....651-296-7588

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**In the Matter of the Route Permit Application for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota**

**Issues Addressed:** These reply comments address analysis of the permittees and initial comments received on the appropriate alignment for this project between proposed structure 0960-103 and the proposed Chub Lake substation.

**Documents Attached:**

- (1) Map 1 – Alignment Options
- (2) Map 2 – Public Comments Received

Additional documents and information can be found on eDockets:

<https://www.edockets.state.mn.us/EFiling/search.jsp> (08-1474) and on the Department’s energy facilities permitting website: <http://mn.gov/commerce/energyfacilities/Docket.html?Id=19860>.

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**Introduction and Background**

On September 14, 2010, the Commission issued a route permit to Great River Energy and Northern States Power Company (permittees) for the Brookings County to Hampton 345 kV transmission line project.<sup>1</sup> Subsequently, the Commission approved two minor alterations to the

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<sup>1</sup> Route Permit for Construction of a High-Voltage Transmission Line and Associated Facilities in Lincoln, Lyon, Yellow Medicine, Chippewa, Redwood, Brown, Renville, Sibley, Le Sueur, Scott, and Dakota Counties Issued to Great River Energy and Northern States Power Company, PUC Docket No. ET2-TL-08-1474, September 14, 2010,

permit – (1) approval for the use of quadruple circuit structures carrying two 345 kV lines and two 115 kV lines along select portions of the route,<sup>2</sup> and (2) approval of a new Chub Lake substation, in lieu of an expanded Lake Marion substation.<sup>3</sup>

On September 21, 2012, the permittees submitted a plan and profile compliance filing for a two-mile section of the Helena substation to Chub Lake substation segment of the project.<sup>4</sup> The permittees requested an alignment for this section which utilized the Commission’s previously approved alterations to the permit, i.e., the use of quadruple circuit structures and the new Chub Lake substation. Permittees requested that the alignment for this section be along the north side of County Road 62 (also known as 245<sup>th</sup> Street) and that the alignment use quadruple circuit structures for the double circuit 345 kV lines of the Brookings County to Hampton project and the existing double circuit 69 kV line along County Road 62 (to be rebuilt to 115 kV standards).<sup>5</sup>

Department of Commerce, Energy Facility Permitting (EFP) staff reviewed the permittees compliance filing. EFP staff concluded that the permittees’ proposed alignment was generally in compliance with the route permit; however, EFP staff also concluded that a specific portion of alignment – that section of the alignment between structures 0960-110 and 0960-112 – was not in compliance with the route permit and that further analysis of the alignment, including analysis of specific impacts to residences along potential alignments for this section, was necessary.<sup>6</sup>

On November 5, 2012, the Commission notified the permittees that their “proposed alignment [for this two-mile section along County Road 62] has comparable overall impacts to the permitted alignment, except for the impacts to residences between proposed structures 0960-110 and 0960-112,” and recommended that “permittees conduct a full engineering design to determine the feasibility of locating the alignment on the south side of County 62 between proposed structures

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eDockets Number [20109-54429-01](#) [hereinafter Route Permit]. The Commission subsequently issued a route permit addendum for a segment of the project between the Cedar Mountain substation and Helena substation. The addendum does not apply to the portion of the route at issue in this matter.

<sup>2</sup> Order Approving Minor Alteration to Route Permit, September 10, 2012, eDockets Number [20129-78487-01](#).

<sup>3</sup> Commission Letter to Ms. Carole Schmidt, Great River Energy, Compliance Review – Chub Lake Substation (Lake Marion Substation), September 7, 2012, eDockets Number [20129-78460-01](#). The letter documents receipt of a compliance filing regarding the proposed Chub Lake substation; it does not explicitly indicate compliance of the permittees’ plans for the proposed Chub Lake substation with the project’s route permit.

<sup>4</sup> Route Permit Compliance Filing, County Road 62 Portion of Helena Substation to Chub Lake Substation Segment, September 21, 2012, eDockets Number [20129-78867-01](#). The filing covered that section of the route between proposed structure 0960-107 and the proposed Chub Lake substation. In order to provide a common starting point for analysis of alignment options, permittees’ filing of February 19, 2013, analyzes this section of the route from proposed structure 0960-103 to the proposed Chub Lake substation – i.e., the analysis starts further west at structure 103 instead 107. For purposes of these comments, EFP staff considers “the two-mile section,” “the two-mile section along County Road 62” and any other references to the section of the route at issue here to be that section of the route between proposed structure 0960-103 and the proposed Chub Lake substation.

<sup>5</sup> Id.

<sup>6</sup> EFP Staff Compliance Filing Review, County Road 62 Plan and Profile, November 1, 2012, eDockets Number [201211-80231-01](#).

0960-110 and 0960-112.”<sup>7</sup> Subsequently, the question of the appropriate alignment for this section of the project came before the Commission.<sup>8</sup>

On February 5, 2013, the Commission issued an order (1) holding in abeyance its compliance review letter of November 5, 2012, (2) requesting that EFP staff “confer with the permittees to obtain additional information to better evaluate the alignment options in question,” and (3) directing Commission staff to issue a notice for additional public comment from potentially affected landowners.<sup>9</sup> Per the Commission’s order, EFP staff conferred with the permittees, and on February 19, 2013, the permittees filed supplemental data regarding alignment options for this section of the project.<sup>10</sup> On February 20, 2013, the Commission issued a notice soliciting public comments on the appropriate alignment for this section along County Road 62.<sup>11</sup>

## Regulatory Process and Procedures

The Power Plant Siting Act (PPSA) requires that the Commission’s route permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”<sup>12</sup> Minnesota Statute Section 216E.03, subdivision 7(b) identifies 12 factors to guide Commission route designations, including the evaluation and minimization of adverse environmental impacts, impacts to public health and welfare, and adverse economic impacts. The Commission is also guided by Minnesota Rule 7850.4100 which establishes 14 factors to be considered in determining whether to issue a route permit, including effects on human settlements, effects on land-based economies, and effects on the natural environment.

Section III.A of the route permit for the Brookings County to Hampton 345 kV transmission line project states:

The designated route identifies an alignment that minimize the overall potential impacts relating to the factors identified in Minnesota Rule 7850.4100 and which was evaluated in the environmental review and permitting processes. As such, this permit anticipates that the actual right-of-way will generally conform to this proposed alignment unless changes are requested by individual landowner or unforeseen conditions are encountered, or are otherwise provided for by this permit.<sup>13</sup>

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<sup>7</sup> Commission Letter to Ms. Carole Schmidt, Great River Energy, Compliance Review – Plan and Profile Alignment Modifications, County Road 62, November 5, 2012, eDockets Number [201211-80387-01](#).

<sup>8</sup> Commission Meeting, January 24, 2013; see Notice of Commission Meeting, January 11, 2013, eDockets Number [20131-82646-03](#).

<sup>9</sup> Commission Order Holding Plan and Profile Approval in Abeyance and Requesting DOC EFP Staff to Take Other Action, February 5, 2013, eDockets Number [20132-83562-01](#).

<sup>10</sup> Route Permit Compliance Filing, Supplemental Data for Alignments by Chub Lake Substation, February 19, 2103, eDockets Number [20132-83958-01](#) [hereinafter Permittees’ Supplemental Data for Alignment Options].

<sup>11</sup> Commission Notice of Comment Period on Permittees Proposed Alignment on the North Side of County Road 62, February 20, 2013, eDockets Number [20132-83993-01](#).

<sup>12</sup> Minnesota Statute 261E.03, Subd. 7(a).

<sup>13</sup> Route Permit, Section III.A.

## **EFP Staff Analysis and Comments**

EFP staff has reviewed the permittees' February 19 filing of supplemental data and analysis, and the comments received by the Commission during the initial comment period for this matter. Based on this review and the record to date, EFP staff believes that for this section of the project a cross-country alignment north of County Road 62 – specifically, alignment options 3 or 5 – is the most appropriate alignment for the project, strikes the best balance of the routing factors in Minnesota Rule 7850.4100, and best minimizes impacts to residences and land use conflicts in the project area.

### ***Permittees' Supplemental Data and Analysis***

Permittees' February 19 filing describes five (5) possible alignment options for the section of route along County Road 62 – between proposed structure 0960-103 and the proposed Chub Lake substation (see attached Map 1).<sup>14</sup> Two of the alignment options (options 1 and 2) proceed along county Road 62.<sup>15</sup> Option 3 runs cross-country north of County Road 62 and is the anticipated alignment in the route permit issued by the Commission.<sup>16</sup> Options 4 and 5 are variations on option 3.<sup>17</sup> The filing analyzes the alignment options with respect to the routing factors in Minnesota Rule 7850.4100.<sup>18</sup> The permittees conclude that alignment options 1 and 2 best satisfy the routing factors in Minnesota Rule 7850.4100 and that in deciding between options 1 and 2 “landowner input will be an important consideration.”<sup>19</sup>

### ***Public Comments***

Public comments were solicited by the Commission from 65 landowners along this section of the project.<sup>20</sup> Public comments on the appropriate alignment for this section of the route were received from multiple persons and residences along the route.<sup>21</sup> EFP staff has attempted to organize these comments to capture the fact that some persons commented several times during the comment period and that multiple persons within a residence may have commented (e.g., a husband and wife submitting separate comment letters). The results of this organization, based on comments received as of the date of these comments, are shown in Table 1:

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<sup>14</sup> Permittees' Supplemental Data for Alignment Options.

<sup>15</sup> Id.

<sup>16</sup> Id.

<sup>17</sup> Id.

<sup>18</sup> Id.

<sup>19</sup> Id.

<sup>20</sup> Notice of Comment Period, Certificate of Service and Service List, eDockets Number [20132-83993-02](#).

<sup>21</sup> Public Comments, eDockets Number [20133-84416-01](#); Phone Message from Mr. Todd Henry Received by Commission Staff on February 25, 2013 [hereinafter Public Comments].

**Table 1 – Public Comments Received by Residence/Address<sup>22</sup>**

<b>Residence/Address</b>	<b>Date of Comment</b>	<b>Alignment Option Preferred</b>
Jerry and Sylvia Henry 9520 245 <sup>th</sup> St.	February 5, 2013	Not on 245 <sup>th</sup> St.
	February 17, 2013	Not on 245 <sup>th</sup> St.
Susan and Jim Miller (near structure #111)	February 8, 2013	Not on 245 <sup>th</sup> St.
	Letter not dated	Option 5 / Not Option 1 or 2
	Letter not dated	Option 5
Michael Bakken 9395 245 <sup>th</sup> St.	February 25, 2013	Option 3 or 5
Todd Henry	February 25, 2013	OK with Option 1
Bill and Sue Ratzlaff 9755 245 <sup>th</sup> St.	February 28, 2013	Not option 2
Dan and Cara Pingel	March 1, 2013	Option 5 / Not Option 1 or 2
	March 1, 2013	Option 5 / Not Option 1 or 2
Daniel Zeien 24151 Black Walnut Dr.	March 1, 2013	Option 5 / Not Option 1 or 2
Greg Silus 24165 Kay Dr.	March 1, 2013	Option 5 / Not Option 1 or 2
Keith Sperbeck 24450 Black Walnut Dr.	March 1, 2013	Option 5 / Not Option 1 or 2
Land and Kelly Ronn 24101 Kay Drive	March 1, 2013	Option 5
	March 1, 2013	Option 5 / Not Option 1 or 2
Marjorie Newton 10550 and 10560 East 245 <sup>th</sup> St.	March 1, 2013	Stop changing the alignment/route; Option 1 or 2
Mark and Joanne Knutson 10211 245 <sup>th</sup> St.	March 1, 2013	Option 5
	March 1, 2013	Option 5
	March 4, 2013	Option 5
Rebecca Grose Black Walnut Neighborhood	March 1, 2013	Option 5

<sup>22</sup> EFP staff has organized comments received based on the residence or address from which the comment was sent or appears to have been sent. EFP staff has made a good faith effort to properly group citizens within residences; nonetheless, errors in grouping may have occurred. Where addresses were included with the comment, they are included in the table.

<b>Residence/Address</b>	<b>Date of Comment</b>	<b>Alignment Option Preferred</b>
Craig Paulsen 24101 Rice Lake Drive	March 4, 2013	Option 5 / Not Option 1 or 2
Brian Smith	March 4, 2013	Option 5
Caryn and Philip Klingbeil	March 3, 2013	Not Option 1 or 2
	March 3, 2013	Option 5 / Not Option 1 or 2
James and Jane Ferris	March 3, 2013	Option 5
Rick and Tanya Berg (Jake Berg, Zoe Berg) (at structure #111)	March 3, 2013	Option 5 / Not Option 1 or 2
	March 3, 2013	Not Option 1 or 2
	March 3, 2013	Not Option 1 or 2
	March 3, 2013	Not Option 1 or 2
Tracy and Theresa Bistodeau (at structure #110)	March 2, 2013	Option 1
Randall and Colleen Oberg 9928 247 <sup>th</sup> St.	March 3, 2013	Option 5 / Not Option 1 or 2
Gary and Pamela Anderson	March 3, 2013	Option 5 / Not Option 1 or 2
	March 3, 2013	Option 5
Allan and Veda Kanitz 9830 247 <sup>th</sup> St.	March 3, 2013	Option 5 / Not Option 1 or 2
Jim Emond Jr. 24301 Rice Lake Drive	March 1, 2013	Option 5 / Not Option 1 or 2
Kevin Kuboushek and Cathy Lund	March 3, 2013	Option 5 / Not Option 1 or 2

Public comments (or comment sets) were received from 24 residences. Of these, eleven comments were received from residences potentially directly impacted by the alignment options under consideration for this section (see attached Map 2). Eight (8) comments were received from residences east of Interstate 35 (I-35) and the proposed Chub Lake substation. This area is not under consideration in this matter. EFP staff believes that residents in this area may have heard, generally, of a proposed alignment along County Road 62, and, as County Road 62 crosses I-35 and proceeds eastward, these residents may have thought that an alignment was being proposed near their residences. This is not the case. Another five (5) comments were received from residents in the project area, but not potentially directly impacted by the alignment options under consideration.

Thus, of the public comments received, EFP staff believes that those comments from the eleven residences potentially directly impacted by the alignment options under consideration are most

relevant to the Commission's deliberations on the appropriate alignment for this section of the project.<sup>23</sup> Of these eleven residences, 8 residences opposed placing the alignment for the project along County Road 62, and suggested that the most appropriate alignment for the project is alignment option 5.

Three out of the eleven residences suggested utilizing an alignment along County Road 62. The Bistodeau residence preferred alignment option 1 as it would allow them to utilize the landowner protections of Minnesota Statute 216E.12, commonly known as the "Buy the Farm" statute.<sup>24</sup> The Newton residence expressed dissatisfaction with the apparent "changing of the route every few months."<sup>25</sup> This residence asked the Commission to "hold closely to the existing route and choose route one or route two."<sup>26</sup> Though EFP staff believes there is ambiguity in this guidance, EFP staff believes it is a preference for an alignment along County Road 62. The Todd Henry residence was not opposed to alignment option 1 as long as the compensation from the permittees for this alignment was fair.<sup>27</sup>

EFP staff notes that no public comments were received from landowners (residences) crossed solely by alignment options 3, 4 or 5. One landowner (Newton residence) has holdings that could be impacted by all alignment options, and this landowner appears to have expressed a preference for alignment option 1 or 2.<sup>28</sup>

#### ***A Cross County (non-County Road 62) Alignment of the Project***

Though the Commission is guided by statute and rule as to the factors to be considered in routing a transmission line, this guidance does not contain a methodology to balance the factors one against the other. The permittees' supplemental filing provides analysis of five alignment options with respect to the routing factors in Minnesota Rule 7850.4100. The analysis then balances these factors, and, in the permittees' opinion, this balancing points to an alignment for the project along County Road 62 (alignment option 1 or 2).<sup>29</sup>

EFP staff believes that the permittees' supplemental filing and the public comments lead to a different balancing conclusion – i.e., to an alignment for the project away from County Road 62. At bottom, EFP staff believes that the challenge in determining the appropriate alignment for this section of the project is in reconciling the conflicting guidance given to the Commission such that new transmission lines (1) share existing transmission line and road corridors, and (2) are routed such that they minimize impacts to human settlements.<sup>30</sup> As summarized by the permittees in their filing – "The legislative policy objective of sharing existing transmission line

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<sup>23</sup> This is not to say that the five comments received from residences in the project area are not relevant. These residences are set back from County Road 62 and use the road for access to their residences. All five residences opposed an alignment for the project along County Road 62.

<sup>24</sup> Public Comments, Comment Letter of Tracy and Theresa Bistodeau.

<sup>25</sup> Public Comments, Comment Letter of Marjorie Newton.

<sup>26</sup> Id.

<sup>27</sup> Public Comments, Telephone Message of Todd Henry.

<sup>28</sup> Public Comments, Comment Letter of Marjorie Newton. Ms. Newton's property extends northward from County Road 62 to the alignment proposed for alignment options 3, 4, and 5.

<sup>29</sup> Permittees' Supplemental Data for Alignment Options.

<sup>30</sup> Compare Minnesota Rule 7850.4100 Part A (effects on human settlements) and Part J (use of existing transportation and electrical transmission system rights-of-way).

and road corridors can sometimes run counter to the objective of minimiz[ing] impacts to human settlements because residential development often follow these same corridors. This contrast is evident in this two-mile segment.”<sup>31</sup>

EFP staff believes that, for this section of the project and for the reasons discussed here, the potential impacts to human settlements outweigh considerations of corridor sharing and non-proliferation. That is, for this section of the project, two transmission line corridors – a 345 kV transmission line north of County Road 62 (Brookings County to Hampton project) and a future double circuit 115 kV transmission line along County Road 62 (Elko New Market project) – strikes the appropriate balance of routing factors and best “minimizes human settlement and other land use conflicts.”<sup>32</sup>

#### The Nature of 115 kV and 345 kV Structures and Their Impacts

The permittees’ discussion of structures and their related impacts along the various alignment options focuses on the sum of these impacts from the Brookings County to Hampton 345 kV project and the Elko New Market 115 kV project.<sup>33</sup> Thus, where transmission line length is discussed, the total length of both projects is presented; where proximity to residences is discussed, the proximity of both projects is discussed. EFP staff believes it is important that information about both projects is available for the Commission and that the permittees have related this information well. A proper assessment of infrastructure corridor sharing is not possible without knowing what infrastructure is in place and planned for a specific area.

All this said, EFP staff believes there is fundamental disagreement between the permittees’ interpretation of the data and the interpretation which flows from the public comments received. The permittees interpret the data for the Brookings County to Hampton 345 kV project and the Elko New Market 115 kV project with little or no distinction made between the types of structures, i.e., 345 kV structures, 115 kV structures. Thus, potential impacts from structures can be summed and weighed accordingly. For example:

- “If only the impacts of the Project are considered, Options 4 and 5 have the fewest homes within 300 feet (4 and 5, respectively)...However, when the 115/115 kV line is considered, the rankings are reversed. Options 1 and 2 results in fewest homes within 300 feet of either the Project or the 115/115 kV line, with 10 and 12 home respectively.”<sup>34</sup>
- “Table 3B shows that the quad circuit design would minimize the number of poles located within this segment. Option 1 and Option 2 require 17 poles along this segment. In contrast, there would be 53 structures for Option 3, 37 structures for Option 4, and 52 structures for Option 5.”<sup>35</sup>

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<sup>31</sup> Permittees’ Supplemental Data for Alignment Options.

<sup>32</sup> Minnesota Statute 261E.03, Subd. 7(a).

<sup>33</sup> Permittees’ Supplemental Data for Alignment Options.

<sup>34</sup> Id.

<sup>35</sup> Id.

- “Options 1 and 2 minimize the proximity to homes in this two-mile segment when impacts associated with both the 345/345 kV line and the 115/115 kV Elko New Market line are considered.”<sup>36</sup>

EFP staff believes that public comments received indicate that residents view the potential structures for the projects as distinctly different with distinctly different impacts. EFP staff’s reading of the public comments is that there is already a double circuit 69 kV transmission line along County Road 62 and that this line is compatible with land use along the road, i.e., residential, suburban development. Residents view the potential upgrade of this line to a double circuit 115 kV line as an incremental impact – an impact they can live with and that is compatible with development along County Road 62. In contrast, EFP staff believes that residents view a potential 345 kV line as a significant impact and as a land use that is incompatible with their residences along County Road 62. As one resident explained:

There is a significant difference between a 70 foot pole in your front yard and a 180 foot power pole which we would have if the quadruple design is approved. We see standard sized (70 ft.) power poles in Minnesota residents front yards all the time, but I have never seen a 180 foot power pole located there anywhere before, and it shouldn’t be located here.<sup>37</sup>

Thus, because the impacts of the structures vary significantly with the structure themselves, residents do not believe these impacts can be summed. Accordingly, for residents, minimizing the number of structures necessary for both projects (Brookings County to Hampton and Elko New Market) does not minimize impacts; minimizing the proximity of residences to structures for both projects does not minimize impacts to residents.

EFP staff believes that public commenters have the better of the argument here – a 345 kV line along County Road 62 would be a significant new impact to this road and residences along the road, and these impacts are not comparable to upgrading the current 69 kV line along the road to a 115 kV line. The existing structures for the 69 kV line are 50 to 70 feet in height;<sup>38</sup> the structures for the Elko New Market 115 kV line are proposed to be 75 feet in height.<sup>39</sup> The quad circuit 345 kV structures proposed for alignment options 1 and 2 are 175 feet in height.<sup>40</sup> From this basic structural information it’s clear that a change from a 69 kV line to a 345 quad circuit kV line is not comparable to a change from a 69 kV line to a 115 kV line. Additionally, those potential impacts which present themselves in upgrading the 69 kV line to a 115 kV line could be mitigated through the route permitting process, e.g., through prudent structure placement along County Road 62.

Thus, EFP staff believes potential impacts of the 345 kV line are best viewed and mitigated independent of the proposed 115 kV upgrade. As the primary means of mitigating impacts to

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<sup>36</sup> Id.

<sup>37</sup> Public Comments, Comment Letter of Jim Miller.

<sup>38</sup> Great River Energy, Frequently Asked Questions, Power Poles, [http://www.greatriverenergy.com/deliveringelectricity/faqs/faq\\_powerpolesdiagrams.html](http://www.greatriverenergy.com/deliveringelectricity/faqs/faq_powerpolesdiagrams.html).

<sup>39</sup> Permittees’ Supplemental Data for Alignment Options.

<sup>40</sup> Id.

residences is to route away from them, an independent-of-the-proposed-115 kV-upgrade approach would argue for alignment options that run cross-country north of County Road 62, particularly alignment options 4 and 5 which have the least number of residences within 300 feet of the proposed 345 kV line.<sup>41</sup>

#### Other Routing Factors Are Not Compelling

The two routing factors discussed above – (1) impacts to human settlements and (2) the use of existing rights-of-ways and infrastructure corridors – are not the only factors in Minnesota Rule 7850.4100 to be considered by the Commission. However, as discussed above, EFP staff believes these two factors are the relevant and compelling factors in determining the appropriate alignment for this section of the project. The other routing factors of Minnesota Rule 7850.4100 do not vary significantly with the alignment options under consideration, are not compelling, or are a subset of the two-corridors-versus-one-corridor discussion above.

The alignment options that proceed cross-country north of County Road 62 (options 3, 4, and 5) will impact relatively more wetlands than options along the road (options 1 and 2). The permittees' supplemental filing indicates that approximately twice as many wetland acres could be impacted utilizing options 3, 4, or 5 as compared to options 1 and 2.<sup>42</sup> Additionally, the permittees note that construction and maintenance along options 3, 4, and 5 will require off right-of-way access, and that matting or other mitigation measures will need to be employed to minimize wetland impacts and to ensure safe operation of equipment.<sup>43</sup>

EFP staff concurs with the permittees that relatively more wetland impacts will occur with a cross-country alignment for the project. However, EFP staff believes that these impacts can be mitigated through the use of matting and other measures.<sup>44</sup> EFP staff believes that the mitigated impacts to wetlands from a cross-country alignment are, relative to potential impacts to residences along County Road 62 from alignments options 1 or 2, not compelling. That is, these impacts are a factor to be weighed, but they do not carry the day.

A second factor raised in the permittees' supplemental filing is the relative cost of specific alignment options.<sup>45</sup> The permittees indicate that alignment "option 1 is the least cost option when the Project and the Elko New Market 115 kV upgrade are considered."<sup>46</sup> The range of costs for the alignment options is from \$4.17 million dollars (option 1) to \$5.59 million dollars (option 3).<sup>47</sup> Though alignment option 1 is the least expensive, EFP staff believes that in the context of the budget for the Brookings County to Hampton project – \$700 to \$775 million dollars<sup>48</sup> – the relative difference in costs between the alignment options is not compelling.

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<sup>41</sup> Permittees' Supplemental Data for Alignment Options, Exhibit 10.

<sup>42</sup> Permittees' Supplemental Data for Alignment Options.

<sup>43</sup> Id.

<sup>44</sup> Measures to mitigate potential impacts to wetlands are standard language for Commission permits, see, e.g., Route Permit, Section IV.B.9. Mitigation measures include but are not limited to spanning wetlands, accessing work areas prudently, and winter construction.

<sup>45</sup> Permittees' Supplemental Data for Alignment Options.

<sup>46</sup> Id.

<sup>47</sup> Id.

<sup>48</sup> Application to the Minnesota Public Utilities Commission for a Route Permit for the Brookings County – Hampton 345 kV Transmission Line Project, December 29, 2008, eDockets Number [5675982](#).

### ***Alignment Options 3, 4, and 5***

For the cross-county alignment options north of County Road 62 (options 3, 4, and 5), no public comments were received which preferred or opposed alignment options 3 or 4. Of the 11 residences potentially directly impacted by the alignment options under consideration here, six residences expressed a preference for alignment option 5.<sup>49</sup> These residences expressed a variety of reasons for this preference, including that the option (1) will have the least impact on residents, property values, and quality of life, and (2) is most similar to the original alignment upon which residents have relied and is an improvement on this original alignment.<sup>50</sup>

Options 4 and 5 have the fewest residences within 300 feet of the proposed 345 kV line – 4 residences and 5 residences respectively.<sup>51</sup> To EFP staff's understanding, the number of residences along these options is less than number along option 3 (8 residences) due to the diagonal crossing of an agricultural field on the west end of this section (proposed structures 0960-107 to 111). To EFP staff's understanding, there is no indication in the record from the landowner(s) whose field would be crossed diagonally whether they are accepting of this alignment.

EFP staff contacted Mr. Wayne Tonsager, the landowner indicated by parcel data as owning the agricultural field on the west end of this section.<sup>52</sup> Mr. Tonsager indicated that he was aware that a variety of alignment options were being considered for this section of the Brookings County to Hampton 345 kV project. He indicated that his expectation was that the 345 kV line would be placed on the alignment indicated in the Commission's route permit (alignment option 3).<sup>53</sup> When EFP staff asked if he had a preference for this original alignment (alignment 3) or an alignment that would cross diagonally across his field (alignments 4 and 5), he responded that he would need to talk with his family before any decision could be made.<sup>54</sup>

Thus, EFP staff believes that alignment options 3 and 5 could be appropriate for the project. If the Tonsagers prefer alignment option 3, three more homes, relative to alignment option 5, would be within 300 feet of the proposed line.<sup>55</sup> These are homes near the right angle turn eastward off of Natchez Avenue – homes within the permitted route but across the road from alignment option 3. Alignment option 3 does follow a road (Natchez Ave.) and field lines and, unlike alignment option 5, avoids proceeding diagonally across a field. Alignment option 5 minimizes impacts to residences by placing the line away residences, but this placement is made possible only by the diagonal crossing of the Tonsagers' field.

Option 4 runs partially cross-country and partially along County Road 62. As such it proposes to utilize quad circuit structures for approximately one mile along County Road 62. In this stretch, public comments were received from four residences potentially directly impacted by the

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<sup>49</sup> Public Comments.

<sup>50</sup> Id.

<sup>51</sup> Permittees' Supplemental Data for Alignment Options.

<sup>52</sup> Phone Conversation with Mr. Wayne Tonsager, March 8, 2013. To EFP's understanding, Mr. Tonsager owns the agricultural field in question and other lands with family members, e.g., in a trust.

<sup>53</sup> Id.

<sup>54</sup> Id.

<sup>55</sup> Permittees' Supplemental Data for Alignment Options.

alignment options under consideration. Of these, three residences oppose any alignment along County Road 62 (and thus, alignment option 4); one residence appears to prefer an alignment option 1 or 2.<sup>56</sup> As discussed above, the preference of public comments appears to be for an alignment away from County Road 62, as residences along the road perceive the impacts of a 345 kV structure quite differently from those of a 115 kV structure.

Based on the record to date EFP staff believes that alignment options 3 and 5 are the most appropriate alignments, of the possible cross-country alignments, and best satisfy the routing criteria of Minnesota Rule 7850.4100.

### **EFP Staff Recommendation**

Based on EFP staff's review of the record to date, EFP staff believes that for this section of the Brooking County to Hampton project a cross-country alignment north of County Road 62 – specifically, alignment options 3 or 5 – is the most appropriate alignment for the project, strikes the best balance of the routing factors in Minnesota Rule 7850.4100, and best minimizes impacts to residences and land use conflicts in the project area.

EFP staff recommends that the Commission reaffirm the permitted alignment for this section of the route and direct the permittees to work with the Tonsagers to determine whether the diagonal crossing proposed by alignment option 5, or a similar crossing that limits impacts to residences, is desirable.

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<sup>56</sup> Public Comments.