


## Staff Briefing Papers

Meeting Date	February 6, 2020	Agenda Item *2
Company	Xcel Energy (Xcel or the Company)	
Docket No.	<b>E002/M-19-268</b>	
	<b>In the Matter of Xcel Energy's Petition for Approval of a Wind Energy Purchase Agreement with Invenergy Wind Energy Development, LLC</b>	
Issues	Should the Commission approve Xcel's petition to purchase a 100 MW portion of Deuel Harvest Wind? If so, should the Commission impose any conditions upon approving the petition?	
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 Relevant Documents	Date
Xcel Energy, <i>Wind RFP Letter</i>	April 10, 2019
Xcel Energy, <i>Petition (Public and Non-Public)</i>	October 1, 2019
Xcel Energy, <i>Supplement and PPA (Public and Non-Public)</i>	November 25, 2019
Department of Commerce, <i>Comments (Public and Non-Public)</i>	January 8, 2020
Xcel Energy, <i>Reply Comments (Public and Non-Public)</i>	January 14, 2020

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

## I. Statement of the Issues

Should the Commission approve Xcel's petition to purchase a 100 megawatt (MW) portion of Deuel Harvest Wind? If so, should the Commission impose any conditions upon approving the petition?

## II. Background

### A. Project Background

On October 1, 2019, Northern States Power Company, doing business as Xcel Energy (Xcel or the Company), filed a Petition for Approval of a Power Purchase Agreement (PPA) between the Company and Invenergy Wind Energy Development, LLC (Invenergy).

Xcel proposes to purchase a 100 MW portion of a 300 MW wind generation facility, the Deuel Harvest Wind Energy Center, to be located in Deuel County, South Dakota. As shown by the figure below,<sup>1</sup> Deuel County's east boundary line adjoins the west boundary line of Minnesota:



This 100 MW offtake agreement will be used to serve customer demand in Xcel's new green pricing program, Renewable\*Connect (R\*C), and Xcel proposes to recover the costs of the Deuel Harvest PPA directly from R\*C customers. Staff will provide more background on the R\*C program later in the briefing paper.

It is expected that Deuel Harvest will have a commercial operation date (COD) no later than December 31, 2021; this schedule intends to maximize the value of the federal wind Production Tax Credit (PTC), which began to phase out in 2017. (The percentage of the tax credit value for Deuel Harvest was designated as trade secret information, but it can be accessed on page 9 of the trade secret version of the Petition.)

<sup>1</sup> Staff used a figure from the Deuel Harvest Wind Farm [website](#).

The Deuel Harvest PPA includes a 15-year term. The energy payment rate, which Xcel designated as trade secret information, is shown in Exhibit J of Attachment A, Page 81 of 89, of the November 25, 2019 supplement. The energy payment rate over 15 years works out to a levelized cost of electricity (LCOE), also designated as trade secret, that is provided on page 7 of the October 1, 2019 Petition. Although these values are not publicly available, Xcel stated that the “agreed upon pricing is competitive relative to many other wind resources on [its] system currently, and system energy overall.”<sup>2</sup>

Deuel Harvest has also obtained local site permits, and according to Xcel, it is supported within the local community. In total, Invenergy expects the Deuel Harvest Wind Energy Center will create 10-15 full time jobs and provide over \$240 million in local economic benefits over its full project life<sup>3</sup> (which will accrue in South Dakota, not Minnesota, and pertains to the full 300 MW project, not the 100 MW portion).

Even though Xcel is proposing to purchase only 100 MW of the project’s output, to give additional background on the entire project, below staff provides two slides from an Invenergy presentation about Deuel Harvest Wind Energy Center, which was filed in South Dakota Public Utilities Commission Docket No. EL 18-053.<sup>4</sup> These particular slides provide a few attributes of the wind facility and summarize the status of the permitting process in South Dakota:

## Project Summary

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### Capacity

- Up to 310.1 Megawatts

### Proposed Project Footprint To Include

- Voluntary wind energy and associated facilities easements across 41,980 acres;
- Up to 112 turbines in Deuel County;
- Access roads, underground 34.5 kV collector lines, underground fiber optic cable for turbine communications;
- An operations and maintenance (O&M) building;
- Up to 4 permanent meteorological (MET) towers; and
- A 34.5-kV to 345-kV Project Substation.

### Proposed Project Transmission Facility

- A 345-kV Interconnection Substation; and
- An approximately 150-foot long 345-kV transmission line connecting the Project Substation and Interconnection Substation.

### Expected Schedule

- Start of Construction: Q4 2019
- Commercial Operation Date (COD): Q4 2020

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<sup>2</sup> Petition, at 11.

<sup>3</sup> Petition, at 5.

<sup>4</sup> Note that the expected COD in the slide above is one year earlier than the updated date provided in the Petition.

## Project Due Diligence

Study	Dates	Status
Site Characterization Study	Fall 2017 and Spring 2018	Complete
Wetland Delineations	Fall 2018	Complete
Wetlands and Waterbodies Survey	Fall 2016 and Fall 2017	Complete
Raptor Nest Survey	Spring 2016 and Spring 2017	Complete
Breeding Bird Survey	June 2016	Complete
Small Bird Use Surveys	Spring 2016 and Spring 2017	Complete
Large Bird Use Surveys	2016 and 2017	Complete
Bat Mist Netting Survey	Summer 2016	Complete
Bat Acoustic Survey	Summer 2016 and Summer 2017	Complete
Protected Butterfly Species Survey	Fall 2018	Complete
Cultural Resources Surveys (Level I and Level III)	Summer 2018	Complete
Historic / Architectural Survey	Summer 2018	Complete
AM and FM Radio Report	November 2018	Complete
Communication Tower Study	November 2018	Complete
Microwave Study	November 2018	Complete

On May 30, 2019, the South Dakota Public Utilities Commission issued a Final Decision and Order Granting Permit to Construct Facilities, with 45 permit conditions.<sup>5</sup>

### B. Procedural Background

#### 1. Wind RFP

The instant docket was opened on April 10, 2019, and it began with a letter from the Company notifying the Commission it had issued a request for proposals (RFP) for up to 200 MW of new wind to supply the Company’s renewable offerings. The RFP also indicated a preference to use union labor, provisions for the bidder to bear full cost responsibility for potential MISO-required interconnection or network upgrade costs, and a COD in 2020 or 2021.

According to Xcel, the RFP “received a robust initial response to [its] solicitation, with options that were differentiated by factors such as contract duration, flat or escalating pricing, use of union labor, COD, and others.”<sup>6</sup> However, Xcel explained that a number of factors, such as challenges with the MISO queue and interconnection cost risk for sellers, precluded the Company from securing a PPA with its first choice option. Furthermore, while Deuel Harvest was among the shortlisted bids (although originally as a 20-year bid, not the 15-year term ultimately negotiated), Invenergy modified its bid over the months that passed as Xcel negotiated with other bidders. Still, in Xcel’s view, it was ultimately able to negotiate a price that is comparable to other recent wind PPAs on its system, as well as include terms that mitigate several ratepayer risks, chief among them being that it is the seller’s responsibility to bear network upgrade costs.

<sup>5</sup> Accessed online at <https://puc.sd.gov/commission/orders/electric/2019/el18-053final.pdf>

<sup>6</sup> Petition, at 6.

## 2. Xcel's Request for Expedited Approval

One of the main procedural issues in this case involved Xcel's ongoing requests for expedited review, which was difficult to accomplish since Xcel's filed its Petition prior to having the PPA finalized.

Xcel filed its Petition on October 1, 2019 and asked the Commission approve its requests by December 19, 2019. The problem, of course, was that parties had nothing to review. As a result, on October 25, 2019, the Department of Commerce (Department) filed a request to suspend the comment period until Xcel files an executed PPA.

The PPA was finally executed on November 25, 2019, and Xcel made a supplemental filing on that day, which included the PPA and another request for expedited Commission approval; in the November 25 supplement, Xcel requested the Commission "consider and approve the Petition by January 16, 2020, but no later than January 23, 2020."<sup>7</sup>

One challenging aspect of accommodating Xcel's second request for expedited review was that the timeline became even more compressed in the supplement. Xcel filed its PPA almost two months after its October 1 Petition, but its requested deadline for Commission approval was only moved back about one month (from December 19 to January 16).

Another challenge was that, since Xcel filed its PPA on November 25, 2019—the Monday of Thanksgiving week—there were three federal holidays in-between Xcel's November 25, 2019 supplement and its January 16, 2020 request for Commission approval.

Procedurally, Xcel's Petition falls within the definition of a "miscellaneous" filing under Minn. R. 7829.0100, subp. 11. And under Minn. R. 7829.1400, a person wishing to comment on a miscellaneous filing is allowed 30 days for initial comments and 10 days for reply comments, unless there is a Commission order or notice establishing a different comment period. Without adjustment to this schedule, initial comments would have been due Christmas Day, and reply comments would have been due Saturday, January 4, 2020. And even under this unrealistic hypothetical—unrealistic meaning that deadlines cannot fall on holidays or weekends—the 30/10 day schedule for comment periods would have left just twelve calendar days for Commission approval.

In staff's opinion, it was impracticable and inconvenient to accommodate Xcel's request for a January 16 or January 23, 2020 approval date, and a lack of sufficient due diligence would not be in public interest. As a result, staff decided it would be prudent to allow parties more time for review, especially given the holidays. Thus, the Notice of Comment Period set deadlines of January 10, 2020 for initial comments and January 22, 2020 for reply comments.

On January 14, 2020, Xcel filed brief reply comments notifying the Commission that the Company was able to negotiate with Invenergy an extension of the Condition Precedent for

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<sup>7</sup> Xcel Supplement, at 2.

Commission approval to February 14, 2020. The PPA Amendment is provided as Attachment A to Xcel's reply comments.

### *C. Renewable\*Connect: Background*

As noted above, the purpose of the Deuel Harvest PPA is to supply energy for the R\*C program. This section of the briefing paper will provide some background on and discuss a few elements of R\*C to aid the Commission's understanding of how the terms of the Deuel Harvest PPA are intended to match the attributes of the R\*C program.

First, by way of background, Xcel currently has two "green tariff" programs—Windsource and R\*C. Windsource was approved in 2002, and according to Xcel, it still continues to grow in participation; however, Windsource is facing some challenges. For example, PPAs that source the program will expire in the next few years. In addition, Windsource subscribers have expressed a desire to be served by solar as well as wind. Xcel also wishes to have a product to meet the needs of its commercial and industrial customers who have an appetite for 100% renewable sourcing.

Thus, in November 2015 and September 2016, with the intention of offering a new choice for meeting customer interest in green pricing, and to phase out and eventually replace Windsource, Xcel proposed the R\*C and R\*C Government pilots.<sup>8</sup> Xcel proposed to source the pilots by dedicating a portion of the output from the Odell Wind Farm and the North Star Solar Project, which were and are existing resources on its system. On February 27, 2017, the Commission approved the pilots and sourcing plan and required several subsequent reports and supplemental filings.

On January 7, 2019, Xcel requested approval to expand its R\*C Pilot program into a full-time, permanent offering. R\*C will continue to be sourced from a blend of wind and solar, and it will provide options for commercial and large industrial customers who prefer long-term contracts and who have high off-peak usage. In the January 2019 petition, Xcel outlined its near- and long-term plans for its green pricing programs:<sup>9</sup>

- 1) discontinuation of Windsource;
- 2) the migration of Windsource resources and customers into R\*C;
- 3) the introduction of new service options under a permanent program; and
- 4) the introduction of a service option for high off-peak usage customers.

Broadly, R\*C is offered as an "Ongoing Month-to-Month" subscription or a "Long Term Offer," which offers participants a lower price per block of renewable energy in exchange for a 5- or

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<sup>8</sup> Docket No. E-002/M-15-985

<sup>9</sup> Docket No. E-002/M-19-33.



10-year commitment period. While available to all customers, the Long Term Offer is tailored to commercial and industrial customers.

The price per block of renewable energy is designed to reflect the actual cost to acquire the renewable resources, and longer subscription terms correspond to lower prices to participate in R\*C. Also, different renewable resources are dedicated to the Ongoing Month-to-Month subscription and the Long Term Offer. Xcel intends to procure “an estimated total of 150 MW of new wind generation to serve the Long Term Offer option,”<sup>10</sup> and Deuel Harvest will provide 100 MW of this amount. The wind facilities that will source the Month-to-Month blocks include the Windsource PPAs that will migrate into R\*C, as well as the Moraine II Wind PPA, which is a 49.5 MW wind PPA that was approved by the Commission on March 25, 2019.<sup>11,12</sup>

On August 12, 2019, the Commission approved R\*C, with modifications, as a full-time, permanent offering. One notable modification is that the Commission limited the maximum term length to ten years. (Xcel proposed 15- and 20-year term lengths.) Xcel explained in its Deuel Harvest Petition that the 10-year maximum term length the Commission established for R\*C was a factor in negotiating a 15-year PPA term with Invenergy. (The Deuel Harvest Project was initially bid as a 20-year PPA.) Basically, Xcel argued that long-term wind contracts that are used to supply R\*C could eventually place undue risk on non-participating customers:

[T]he Commission’s Order approving the Company’s Petition on expanding Renewable\*Connect limited the Long Term Offer to 10 years. Therefore, there is a risk that, in the years beyond the duration of the first Long Term Offers, we may not re-contract all the energy provided from this Facility. In this case, the Company would propose to consider the energy a system resource, allocating the energy and Green Benefits to all system customers, and seek alternate cost recovery for the PPA’s energy costs through the Fuel Clause Rider.<sup>13</sup>

In Xcel’s January 2019 R\*C petition, the Company provided a table helpfully illustrating the basic components of Windsource and R\*C, as well as the transitional and future states of these programs. However, since that time, the Commission approved R\*C, but with modifications, and Xcel has now selected the wind (Deuel Harvest) and solar (Elk Creek) resources that will supply the estimated customer demand for the program. Therefore, staff asked Xcel in PUC Information Request No. 1 to update the Company’s table from its January 2019 R\*C petition in order to incorporate (1) modifications from the Commission’s August 12, 2019 Order and (2) Xcel’s plans for the 100 MW Deuel Harvest Wind PPA and the 80 MW Elk Creek Solar PPA. Xcel’s response to staff’s request is shown below:

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<sup>10</sup> Petition, at 5.

<sup>11</sup> Docket No. E-002/M-19-58

<sup>12</sup> Moraine II was an expansion project to meet future requirements of Windsource. The original Moraine II PPA had a February 17, 2019 expiration date. In Docket No. 19-58, Xcel proposed and received approval to amend and extend the PPA for an additional ten years and lower the price to a level comparable to other recent wind projects. The Commission further allowed Xcel to use the wind energy from Moraine II to meet future renewable energy requirements of Windsource and R\*C.

<sup>13</sup> Petition, at 10.

**Table (MPUC 1) 1: Updated Proposed Programs and Transition Plan**

	Windsource	Pilot	Month-to-Month	Long Term
<b>Current</b>				
Terms	Month-to-month + Special Event	5 Year, 10 Year, Month-to-Month + Special Events		
Resources	Windsource PPAs + small percent of Moraine II + Wind RECs	Portions of Odell Wind and North Star Solar		
Program Management	Open	Fully Subscribed		
<b>Transition Period 2019-2021</b>				
Terms	Month-to-month + Special Event	5 Year, 10 Year, Month-to-Month + Special Events		Optional short-term R*C Bridge
Resources	Windsource PPAs + Moraine II + Wind RECs + Solar RECs	Portions of Odell Wind and North Star Solar		Purchased RECs
Program Management	Open	Fully Subscribed		
	Windsource	Pilot	Month-to-Month	Long Term
<b>2021 and Beyond</b>				
Terms		5 Year, 10 Year	Month-to-Month + Special Events	5 & 10 Year
Resources		Portions of Odell Wind and North Star Solar	Windsource PPAs + Moraine II + 30 MW of Elk Creek Solar	100 MW of Denel Harvest Wind + 50 MW of Elk Creek Solar + 50 MW of additional Wind
Program Management	Closed when Month-to-Month opens	Fully Subscribed	Enrollment grows through time	Limited Enrollment

Staff notes four things about Xcel’s table and the Company’s plans for resource allocation:

First, as noted previously, no new wind is planned to source the Month-to-Month option at this time. This is because the wind portion of the monthly subscription will be supplied by existing Windsource PPAs and Moraine II.



Second, the table above lists the 80 MW Elk Creek Solar project, which is currently pending Commission approval in Docket No. 19-568, as a source for both Month-to-Month and Long Term Offer customers. Xcel proposes to dedicate 30 MW of Elk Creek Solar to the Month-to-Month option, and 50 MW to Long Term Offer customers. Xcel noted in its Petition that Deuel Harvest's pricing "pairs well with the proposed solar project, when considering the indicative pricing prospective new Renewable\*Connect customers have reviewed."<sup>14</sup>

Third, the R\*C pilot is fully subscribed. Moreover, Xcel noted on page 5 of the Deuel Harvest Petition that, as of August 2019, there are currently over 2,300 customers on the waiting list. Thus, the need for Deuel Harvest is the result of full subscription in the pilot, as additional resources are required in order to expand the program.<sup>15</sup> Staff asked Xcel to elaborate on the waiting list, and Xcel explained:

As described in Docket No. E002/M-15-985, the Company proposed Renewable\*Connect as a pilot in part to test customer interest in the features and structure of a new format for a green tariff. The pilot, approved by the Commission on February 27, 2017, identified an initial tranche of resources to serve customers in the pilot. The pilot was approved with the expectation that, with learnings over time, the Company would further develop the pilot and bring forward a request to offer a program at scale. Within the first year of the pilot's availability, customer demand outstripped capacity. **Once the pilot sold out, the Company initiated a waiting list to track interest in the program until more resources became available.** The Company's petition to expand Renewable\*Connect was filed in Docket No. E002/M-19-33 and was approved on August 12, 2019. Since that time the Company has continued to track customer interest as it brings forward resources to serve customer demand.<sup>16</sup> (Emphasis added by staff.)

Fourth, as mentioned previously, the COD for Deuel Harvest Wind is "no later than December 31, 2021," which is a full year later than what is listed in the table above. In other words, since the time the Commission approved R\*C, program expansion will be delayed by one year due to the time needed to acquire renewable resources. Xcel acknowledged this on page 7 of the Deuel Harvest petition, stating:

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<sup>14</sup> Petition, at 11.

<sup>15</sup> Staff notes that, while it is correct that the demand for the pilot outstripped capacity within the first year, this was only after Xcel came back to the Commission to request modifying the original order approving the pilot to remove the 10% per-customer limit on subscription size (Docket 17-695). In other words, there was not enough demand for the pilot to meet the capacity until the Commission removed the 10% subscription limit. This allowed a few large C&I customers (e.g. the City of Minneapolis) to buy up the remaining capacity available in the pilot. According to Xcel's September 21, 2017 petition, "after an extensive marketing campaign, not all expressions of customer interest resulted in contracts and approximately one-third of the pilot tranche remains available. We believe the time is right to remove the size restriction as it has fulfilled its purpose, and all customers have had a reasonable opportunity to subscribe to the pilot tranche."

<sup>16</sup> Xcel response to PUC Information Request No. 2 (December 23, 2019).

We note that the Company originally proposed to expand the Renewable\*Connect Program starting in 2021, but we have adjusted our timeline per the availability of resources to fulfill customer demand.<sup>17</sup>

### III. Petition and PPA Terms

#### A. *Transmission Considerations and Interconnection Costs*

Deuel Harvest will interconnect to the regional electric grid along the Big Stone South to Brookings 345-kV transmission line. The project was evaluated as part of MISO's February 2016 Definitive Planning Process (DPP), which involves three sequential phases of system impact studies where MISO determines whether network upgrades are needed to accommodate the interconnection. These upgrades will be included within the various construction agreements that MISO files with the Federal Energy Regulatory Commission (FERC), such as a Generator Interconnection Agreement (GIA).<sup>18</sup>

The importance of completing the DPP process and having a GIA in place is basically that it provides more certainty the project will move forward. According to Xcel's response to PUC Information Request No. 5, the GIA for Deuel Harvest was executed on February 6, 2019.<sup>19</sup> In the same IR response, Xcel provided the initial cost estimates for the DPP3 (Phase III) studies, as of February 2019, as well as subsequent "Facilities Studies." The Facilities Studies show a slight revision to the costs. (Both cost estimates were designated as trade secret information.)

Xcel's Petition emphasizes the significant role MISO interconnection costs played during the PPA negotiations. In fact, even Xcel's RFP soliciting bids emphasized the importance of the ability to interconnect and the seller bearing the costs for interconnection; the RFP stated, for example:

The Company reserves the right to reject any RFP Project proposal that does not include the full cost responsibility to the bidder of any known or potential interconnection costs or network upgrades that may be required by MISO and/or that does not include interconnection studies supporting interconnection and transmission requirements including technical description and estimated costs of network upgrades from studies completed or underway.<sup>20</sup>

Also of note, in the bid screening process, Xcel considered both price and non-price criteria. (Xcel's response to Department Information Request No. 3, which is summarized on page 5 of the Department's comments, discusses how Xcel scored various criteria listed in the RFP.)

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<sup>17</sup> Petition, at 7.

<sup>18</sup> The GIA indicates that Otter Tail, as the transmission owner, will design, procure, construct and own the facilities required to interconnect the Project to the Big Stone South to Brookings line.

<sup>19</sup> Xcel response to PUC Information Request No. 5.

<sup>20</sup> Xcel April 10, 2019 Wind RFP. Accessed online at <https://www.xcelenergy.com/staticfiles/xcel/PDF/NSP-2019-Wind-RFP.pdf>

Based on this review, Deuel Harvest was among three options that scored significantly higher than other bids received in response to its RFP. While price was by far the most significant factor, projects where all transmission and interconnection costs were borne by the seller, and had a favorable position in the MISO queue, received more points in the project scoring.<sup>21</sup>

Unfortunately, Xcel's strong preference for bidders to bear the full cost responsibility of potential MISO-required interconnection or network upgrade costs became increasingly problematic as time went on. In fact, Xcel's first choice project abandoned negotiations due to emerging challenges with the MISO queue that left the seller unwilling to bear interconnection cost risk.<sup>22</sup> By the time Xcel proceeded with negotiations with Invenergy for Deuel Harvest, months had passed since Invenergy's initial bid. At this point, Invenergy provided Xcel with a revised bid, which was updated in order to readjust the seller's risk, due to the same MISO interconnection challenges that led other sellers to drop out of negotiations.

Despite these challenges, the fact that Deuel Harvest has a signed GIA and known interconnection costs is a critical advantage over other prospective wind projects which could supply R\*C, especially, as Xcel explained, in the current MISO queue environment:

[T]here are challenges with respect to wind interconnection costs in the MISO West region currently, and as a result, many new projects have recently withdrawn from the MISO queue. Therefore, it is important that we take timely advantage of an opportunity to procure attractively priced project with known interconnection costs.<sup>23</sup>

In light of these transmission considerations, as well as other factors such as the available PTC benefit, Xcel believes that "it is increasingly unlikely that [the Company] would find a similarly attractive wind project in the current market."<sup>24</sup>

### *B. Union Labor*

For both R\*C PPAs Xcel has proposed (Deuel Harvest Wind and Elk Creek Solar), Xcel pursued union labor provisions for constructing and commencing operations. Xcel was able to secure contract terms for union labor for the Elk Creek Solar PPA, but not for Deuel Harvest.

In the Petition, Xcel stated it was "in discussions to determine whether a pricing option that includes provisions for labor is feasible."<sup>25</sup> In PUC Information Request No. 4, staff asked Xcel to provide any updates on whether progress had been made as a result of these ongoing discussions. The Company responded that Xcel and Invenergy were unable to arrive at

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<sup>21</sup> See Xcel's response to Department IR No. 3, filed as Attachment B, Pages 7-8, of Xcel's January 14, 2020 reply comments.

<sup>22</sup> Petition, at 6.

<sup>23</sup> Petition, at 5.

<sup>24</sup> Petition, at 7.

<sup>25</sup> Petition, at 7.

acceptable terms for union labor in final negotiations; in part, this was because Xcel is purchasing only a minority portion of the project's output:

While the Company made its preference for union labor clear to Seller during negotiations, Seller ultimately did not provide a union labor pricing option. Given the Company is purchasing a minority portion of the Project's output and that **[TRADE SECRET DATA EXCISED]**. This would have made the project uneconomic, and thus a proposal for a union labor bid did not move forward.<sup>26</sup>

### C. "Green Benefits"

Xcel will be assigned all "Green Benefits,"<sup>27</sup> such as Renewable Energy Credits (RECs), associated with the renewable energy purchased under the PPA. In accordance with the R\*C program, Xcel will retire associated RECs on behalf of the subscribers, based on energy purchases from this system.

### D. Other Terms

For the Commission's reference, below staff provides a brief list of other sections of the PPA the Commission might find noteworthy:

- Exhibit B describes the metering that will be installed, the allocation of the full project, and market participation.<sup>28</sup> Of note, since Xcel is a minority purchaser, Invenergy will remain the MISO market participant and will be in control of scheduling the project into MISO, including initiating, or responding to MISO direction for, curtailments.
- Exhibit J shows the energy payment rate for each commercial operation year.<sup>29</sup>
- Exhibit M describes the Availability Guaranty.<sup>30</sup> This section provides, among other things, the "Expected Facility Output;" it goes on to address availability damages, which establishes a formula to compensate Xcel if the facility fails to operate for a minimum portion of the year. Attachment 1 to Exhibit M provides an example calculation of availability damages.

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<sup>26</sup> Xcel response to PUC Information Request No. 4 (December 23, 2019).

<sup>27</sup> Section 7.3(D) of Article 7 of the PPA states: "For purposes hereof, "Green Benefits" means existing and future environmental credits, benefits or attributes, emissions reductions and avoidance (including emission rate credits), offsets, allowances and green tags, attributable to the Facility during the Term and/or Renewable Energy sold to Company under this PPA, recognized by Applicable Law, including any rights to compensation therefor."

<sup>28</sup> See Xcel's November 25, 2019 supplement, Attachment A, Page 59 of 89.

<sup>29</sup> See Xcel's November 25, 2019 supplement, Attachment A, Page 81 of 89.

<sup>30</sup> See Xcel's November 25, 2019 supplement, Attachment A, Page 84 of 89.

#### IV. Economic Analysis

Of note, Xcel did not analyze Deuel Harvest as a system resource in a capacity expansion model, such as Strategist or EnCompass. This is because, Xcel explained, capacity expansion modeling is typically performed to evaluate the economics of *system* resources or when it has a capacity or other need.<sup>31</sup> Energy purchased from Deuel Harvest is specific to R\*C, and the cost of this energy will be recovered directly from those who opt into the program.

Nevertheless, Xcel considered two benchmarks to assess the economic viability of the PPA; first is how this project's price compares to other existing or potential new wind resources on its system, and second is whether R\*C customers will be willing to pay this cost when blended with other R\*C resources.<sup>32</sup> According to Xcel, Deuel Harvest "is economically reasonable on both of these measures."<sup>33</sup>

Xcel further explained that it is economically reasonable in comparison to other bids it received in its RFP:

The price included in the PPA is in line with average prices for 12- and 20-year project bids received in response to our RFP. While not as favorable as the original Deuel Harvest shortlisted bid or other shortlisted options, several other favorable projects have either already signed with other off-takers or have significant cost uncertainty associated with potential transmission interconnection upgrade costs needed to interconnect to the grid.<sup>34</sup>

In addition, Xcel expects "the project will qualify for the specified level of federal PTCs, and the finalized contracted price will not change in the event that the Project does not meet this qualification."<sup>35</sup>

Finally, Xcel noted that "market conditions are such that competitively priced wind projects with relatively low interconnection risk are scarce. This effectively shifts negotiating power to sellers and can introduce risk for the Company in negotiating contract terms."<sup>36</sup>

#### V. Department Comments

The Department was the only intervening party to provide comments. The Department recommends that the Commission approve Xcel's Petition.

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<sup>31</sup> Xcel response to PUC Information Request No. 6.

<sup>32</sup> Xcel response to PUC Information Request No. 6.

<sup>33</sup> Xcel response to PUC Information Request No. 6.

<sup>34</sup> Xcel response to PUC Information Request No. 6.

<sup>35</sup> Petition, at 11.

<sup>36</sup> Petition, at 12.

Staff notes that the Department's analysis references a number of information requests used to support its conclusion that the PPA is reasonable. Staff asked Xcel to e-file the Company's responses to the Department information requests cited in its comments. Xcel included its responses to the Department as attachments to its January 14, 2020 reply comments.

#### *A. Need*

The Department concluded since the Commission approved Xcel's R\*C program as a full-time, permanent program offering, and because nothing in the Commission's modifications to Xcel's proposal would have an impact on the need to procure additional renewable resources, Xcel has a need to add resources.

#### *B. RFP Process*

Pages 3-6 of the Department's comments address the Company's RFP process. The Department first noted that the parameters of the RFP were consistent with the Company's goals for R\*C, and the RFP was announced through a variety of mediums.

The Department's comments then summarized Xcel's approach to project selection. The RFP stated that "the Company intended to use a three-phase approach to evaluating proposals offered in the RFP. The three phases include a completeness review, a threshold review, and a key parameters review and scoring."<sup>37</sup> These phases can be briefly summarized as follows:

- 1) The completeness review "ensures compliance with all bid submittal requirements (fees, sufficient information provided in bid responses, etc)."<sup>38</sup>
- 2) The threshold review "ensures the bidder and RFP Project complies with all specific bid requirements including:
  - a. RFP Project size
  - b. RFP Project location
  - c. RFP Project anticipated commercial operation date
  - d. Interconnection to MISO [Midcontinent Independent System Operator, Inc.] in the Project Area
  - e. Bidder creditworthiness
  - f. Bidder experience
  - g. Accounting assessment."<sup>39</sup>
- 3) Four key parameters were used to score and evaluate the RFP Projects:
  - a. Pricing
  - b. Transmission

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<sup>37</sup> Department comments, at 3.

<sup>38</sup> Department comments, at 3.

<sup>39</sup> Department comments, at 4.

- c. Labor
- d. PPA Compliance.<sup>40</sup>

Regarding the four key parameters listed above, in response to Department Information Request No. 3, Xcel explained its scoring method as follows:

For price, Xcel calculated a levelized cost of energy (LCOE) using the bid price and PPA term provided for each Option. Xcel then created 10 price bins, determined by dividing the range of LCOEs into 10 equal bins, and each Option was placed in the relevant bin. Options in the lowest price bin received 10 points, those in the next lowest bin received 9 points, and so on.

For transmission, each Option that included a bidder statement certifying that all transmission and interconnection costs were borne by the bidder received 4 points. The remaining 6 points were allocated based MISO queue position. Options with MISO queue positions in a 2016 study group received 6 points, those in a 2017 study group received 4 points, those in a 2018 study group received 2 points, and those in the 2019 study group received 1 point.

For labor, each Option with a union labor bid price received 10 points. Each Option with a non union labor bid price received 0 points.

For PPA compliance, Options that included a bidder statement certifying that the bid complied with the NSP Model PPA received 4 points. The remaining 6 points were allocated depending on the number of exceptions in the Option. Options with no exceptions received 6 points, 1-10 exceptions received 3 points, and more than 10 exceptions received 0 points.<sup>41</sup>

Xcel determined that Deuel Harvest was one of three shortlisted options which “scored significantly higher than all other bids remaining.”<sup>42</sup> The Department’s analysis confirmed this, and it elaborated on this characterization by citing Xcel’s response to Department Information Request No. 4, in which the Company explained:

Based on our scoring approach, three Options received a score of 90 points or higher. All remaining Options had overall scores of 77 points or less. Based on this result, NSP shortlisted these top three price options.<sup>43</sup>

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<sup>40</sup> Department comments, at 5.

<sup>41</sup> Department comments, at 5.

<sup>42</sup> Xcel Petition, at 6.

<sup>43</sup> Department comments, at 6.



Thus, the Department concluded that “Xcel reasonably evaluated the projects in accordance with the parameters specified in the RFP. Further, the Company’s short list of the top three projects is reasonable.”<sup>44</sup>

### *C. PPA Negotiations and Review*

Xcel encountered challenges during the negotiation process, including issues with the MISO queue. This led to one shortlisted option executing a PPA with another buyer and Invenegy updating its bid. As a result, when the time came to finalize the Deuel Harvest PPA, according to the Department, “the Company essentially had two choices, agree to a revision of the terms of the Option, or re-start the RFP process.” The Department continued, “[w]hile as a general rule the Department is opposed to substantial revision of bids after the beginning of the RFP process . . . the Department concludes that it was reasonable for Xcel to continue negotiations regarding Deuel Harvest rather than re-start the RFP process.”<sup>45</sup>

For its review of the finalized PPA, the Department primarily ensured that ratepayers will be sufficiently protected from risks. The Department largely discussed two main areas of risks for wind PPAs: financial risks and operational risks.

#### Financial Risks

For PPAs, the Department explained, there are two main financial risks that may have negative impacts on Xcel’s ratepayers:

- 1) a seller default and termination of the PPA before the expiration of the contract period; and
- 2) entitlement by a lender or other party, as a result of the seller’s failure to pay debt, to take over the project and terminate the PPA.

The Department reviewed the risk allocation features in the PPA, which include:

- Xcel has the right to terminate the PPA if the seller does not pay for damages in excess of the damage cap.
- The PPA includes insurance policies serve to mitigate the financial risk faced by Xcel if an insured event were to occur.
- The PPA contains indemnification provisions; one such provision is a requirements that the seller indemnify and hold the Company harmless against all losses arising out of any

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<sup>44</sup> Department comments, at 6.

<sup>45</sup> Department comments, at 7.

claim alleging Environmental Contamination at the site and/or illegal disposal of Hazardous Materials.

- There are restrictions on the transfer of Deuel Harvest and on changes of control of the seller. Such restrictions make it less likely that the Executed PPA will be assigned to a party that is unable to meet the terms.<sup>46</sup>

Upon its review, the Department concluded that Xcel's ratepayers would be reasonably protected from financial risks.

### Operational Risks

The Department began its discussion of operational risks by raising issues that are common among almost all wind PPAs:

As is typically true of PPAs, the operational risks are the risks that the Project will not be built and operated as expected. These risks include a complete shutdown or a partial shutdown of the Project due to technical problems. In the case of a partial shutdown, ratepayers must be assured that their payments for the wind energy are reduced accordingly. In the case of a complete shutdown, once again Xcel may face the risk of non-compliance with the various legislative or Commission requirements, and may need to find what is likely to be more expensive replacement power.<sup>47</sup>

According to the Department's analysis of these issues, "[t]he Executed PPA includes specific features that protect both Xcel and its ratepayers from the operational risks discussed above. These features include the security fund discussed above, and payments only for energy actually delivered to Xcel."<sup>48,49</sup>

Other ratepayer protections in the PPA pertaining to operational risks include:

- The seller is required to construct a minimum nameplate capacity. If the seller cannot meet the full capacity requirement (but can meet the minimum requirement) the seller must pay Xcel damages. (Article 4)
- There is an availability guaranty calculation, the minimum availability requirement, and damages should the minimum availability requirement not be met. This ensures that Deuel Harvest will be operational a minimum portion of the year or Xcel will be compensated. (Exhibit M)

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<sup>46</sup> Department comments, at 8-9.

<sup>47</sup> Department comments, at 9.

<sup>48</sup> Department comments, at 9.

<sup>49</sup> In any case the Company is not required to pay for energy from Deuel Harvest in excess of 100 MW.

- The PPA requires certain metering to ensure that Xcel's payments are for energy actually received.

Based on the risk allocation features in the PPA, the Department concluded that Xcel's ratepayers would be reasonably protected from the operational risks.

#### *D. Department Recommendation*

The Department recommends that the Commission approve Xcel's Petition.

### **VI. Staff Recommendation**

Staff recommends the Commission approve Xcel's requests as stated on page 14 of the Company's Petition: (1) approve the Deuel Harvest Wind PPA, as an energy source for the expanded Renewable\*Connect Program; and (2) find that the Company may recover purchased energy costs from participating customers through Renewable\*Connect tariffs. Staff believes the factors listed below, when considered collectively, provide a sufficient basis for approving Xcel's requests:

- The Commission's August 12, 2019 *Order Approving Petition with Modifications* in the R\*C docket established a need for Xcel to acquire new renewable resources to source the program's expansion as a full-time, permanent offering.
- Xcel selected Deuel Harvest through an RFP process, which was transparent and evaluated by an independent auditor.
- The price is comparable to other wind projects the Commission has approved.
- Based on the Department's review of the PPA, ratepayers are reasonably protected from financial and operational risks.
- The project appears to have either completed or is very far along in the South Dakota permitting process and the MISO interconnection process, so it seems the risk is low that the project will fall through.
- No person or party opposed the Petition.

As an additional item for consideration, it is common in wind acquisition dockets for the Commission to require utilities to file status reports until projects are in service (or even after in some cases). The Commission could do the same here. While staff does not believe a Deuel Harvest status report needs to be filed as regularly as quarterly, for example, staff believes two status reports in mid-2020 and mid-2021 would provide useful information. Thus, staff added

Decision Option 3, which is a requirement for Xcel to file status reports on July 1, 2020 and July 1, 2021.

Finally, staff expects that if something drastic occurs—e.g. if Invenergy terminates the PPA or if the project fails to come to fruition—Xcel will notify the Commission and include a proposal for backfilling the project. For this reason, staff chose not to include a decision option that would require Xcel to take an action that it will almost certainly do anyway.

## **VII. Decision Options**

1. Approve the Deuel Harvest Wind PPA, as an energy source for the expanded Renewable\*Connect Program. (Xcel, Department, Staff)
2. Find that Xcel may recover purchased energy costs from participating customers through Renewable\*Connect tariffs. (Xcel, Department, Staff)
3. Direct Xcel to file a compliance filing on July 1, 2020 and July 1, 2021 to provide an update on the status of the project.
4. Deny the Petition.