STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Dan Lipschultz	Vice Chair
Matt Schuerger	Commissioner
Katie Sieben	Commissioner
John Tuma	Commissioner

In the Matter of the Petition by Northern States Power Company d.b.a. Xcel Energy for Approval of the Acquisition of the Mankato Energy Center (MEC)

DOCKET NO. IP6949, E002/PA-18-702

COMMENTS OF THE OFFICE OF THE ATTORNEY GENERAL

The Office of the Attorney General—Residential Utilities and Antitrust Division ("OAG") respectfully submits the following Comments in response to Northern States Power Company's ("Xcel" or "the Company") request for approval of the acquisition of Mankato Energy Center, LLC ("MEC") from Southern Power Company ("Southern Power"). The Commission should either 1) reject Xcel's Petition without prejudice, and consider its proposal in the forthcoming Integrated Resource Plan ("IRP") filing, or 2) reject the filing because Xcel has not demonstrated that its proposal is consistent with the public interest. If the Petition is approved against these recommendations, the Commission should establish conditions to protect ratepayers.

BACKGROUND

The Company filed a letter on November 6, 2018 to notify interested parties of its signed purchase agreement to purchase MEC from Southern Power Company. The Company formally filed its Petition on November 28, 2018.

MEC will include two natural gas combustion turbines at the Mankato facility. The first unit, MEC I, consists of a combustion turbine and an oversized steam turbine creating a combined-cycle facility that has a capacity of 375 MW. The second unit, MEC II, is currently being constructed by Southern Power and will convert the facility from a 1x1 unit into a 2x1 combined cycle unit consisting of two combustion turbines and a single steam turbine. MEC II is expected to be in commercial operation by June 1, 2019 and will have a capacity of 345 MW.[1] In its Petition, Xcel requests permission to purchase MEC for the price of $650 million. The price includes an acquisition premium of $96 million, in addition to an estimated $507,000 in transaction costs.[2]

LEGAL STANDARD

Xcel's Petition to buy the MEC I and MEC II facilities and convert the PPAs to Company ownership falls under the requirements of Minnesota Statutes section 216B.50. Minnesota Statutes section 216B.50 provides that no public utility may "acquire" any plant for more than $100,000 without being authorized to do so by the Commission. If the Commission finds that the proposed action is "consistent with the public interest," after considering "the reasonable value of the property . . . to be acquired," then it shall give its consent and approval.

Xcel's Petition also touches on other statutes and requirements. Xcel's analysis is contingent on owning and operating MEC I and II beyond the terms of the existing PPAs, which expire in 2026 and 2039. Under normal procedures, Xcel would be required to demonstrate that there is a need for resources on its system during that time period, and that this resource is a reasonable way for meeting that need, pursuant to Minnesota States section 216B.2421 and Minnesota Rules chapter 7843.

[1] Petition at 15.
[2] Of that amount, Xcel states that $637 million would go into rate base. The remaining $13 million would go into FERC Account 154-Plant Materials and Operating Supplies and FERC Account 165-Prepayments. The transaction costs would also go into plant-in-service.

ANALYSIS

I. THE DECISION TO PURCHASE MEC IS A LONG-TERM RESOURCE DECISION THAT SHOULD BE MADE IN CONJUCTION WITH ALL OF THE OTHER RESOURCE DECISIONS IN XCEL'S IRP.

In Minnesota, decisions about the generation resources that electric utilities are permitted to acquire are made in IRP proceedings pursuant to Minnesota Statutes section 216B.2422 and Minnesota Rules chapter 7843. The purpose of the IRP is to ensure that regulated utilities are able to "maintain or improve the adequacy and reliability of utility service" to their customers for the least cost while complying with state mandates.[3] Additionally, the IRP factors to consider include: "enhanc[ing] the utility's ability to respond to changes in the financial, social, and technological factors affecting its operations" and "limit[ing] the risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control."[4] Xcel clearly recognizes that purchasing MEC is the type of decision that would normally be made in the IRP, because it preemptively provided its arguments against doing so. According to Xcel, the decision should be made outside of the imminent IRP because 1) Southern Power wants to close its divestiture as soon as possible, and 2) this decision should be viewed as a "change in ownership" rather than as a traditional resource acquisition.[5] Xcel's arguments are unpersuasive for at least two reasons.

A. XCEL HAS MANIPULATED THE TIMING OF ITS FILINGS TO EXCLUDE THE MEC PURCHASE DECISION FROM THE IRP.

Xcel argues that the decision about purchasing MEC must be made quickly, and outside of the IRP, because Southern Company wants to close quickly in 2019. This argument is flawed for two reasons. First, the speed at which Southern Company wants to close should not impact

[3] Minnesota Rules chapter 7843.
[4] Minnesota Rules chapter 7843.
[5] *See* Petition at 4–5.

the Commission's regulatory practices or the protections granted to ratepayers. Both Southern Company and Xcel were fully aware of Minnesota's statutes and rules, and the schedule for the IRP, when they were negotiating their agreement. The Commission should not allow itself to be pressured to make a quick decision outside of its normal process in order to satisfy corporate shareholders.

More importantly, this issue *could* have been included in the IRP filing that was originally scheduled for February 1, 2019, if Xcel had not requested to delay it until July. Xcel knew about the MEC purchase months ago, including when it requested an extension of the IRP deadline, but said nothing. In fact, Xcel did not provide details about the MEC purchase until November 28, 2018, only a few days before the Commission met to consider the IRP extension. At that point, Xcel had known about MEC, and the fact that it would impact the IRP proceeding, for months.

In response to OAG Information Request 24, Xcel admitted that it first learned that Southern Company was considering a sale of MEC on August 23, 2018.[6] Xcel entered into negotiations with Southern on August 31, 2018, and submitted a bid on September 7, 2018.[7] Negotiations continued for a few weeks, and there was an agreement in principle between the two companies for Xcel to purchase MEC on October 2, 2018.[8] Two weeks later, Xcel filed its request for an extension of the IRP deadline on October 15, 2018, in which it did not mention the MEC purchase.[9]

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[6] OAG Information Request 24, Exhibit 1.
[7] *Id.*
[8] *Id.*
[9] *In the Matter of Xcel Energy's 2016–2030 Integrated Resource Plan*, Docket E-002/RP-15-21, REQUEST FOR EXTENSION (Oct. 15, 2018), eFile No. 20189-146191-01.

Xcel knew about MEC when it requested an extension of the IRP. It knew that extending the IRP deadline would make it nearly impossible to consider MEC in the IRP while meeting the schedule that Southern wanted. There is no reasonable explanation for why the October 15, 2018 letter requesting an extension of the IRP deadline did not explain that Xcel had agreed to purchase MEC two weeks earlier. Given these facts, it would be reasonable for the Commission to assume that Xcel requested an extension of the IRP in part to make sure that the MEC purchase would be considered separately from all of the other resource decisions in the IRP. The Commission should keep this gamesmanship in mind as it moves forward, and ensure that it decides the best way to consider Xcel's resource planning issues.

B. PURCHASING MEC IS A LONG-TERM RESOURCE PLANNING DECISION.

Xcel argues that it is not necessary to consider the MEC purchase in an IRP because the purchase is simply a change in ownership, rather than a resource acquisition. This argument is flawed because purchasing MEC involves at least three aspects of long-term resource planning that should be considered in the IRP.

1. The Value Of Purchasing MEC Depends On Whether It Will Be Operated As A Long-Term System Resource After The Existing PPAs Expire.

MEC I and MEC II are currently approved system resources through 2026 and 2039, respectively, in their form as PPAs. Whether there is a need for resources after the PPAs expire, and whether MEC is the right resource to meet that need, is a core resource planning decision that would normally take place in the IRP. The problem is that Xcel is asking the Commission to pre-judge whether MEC will be a system resource after the PPAs, and doing so outside of the normal process. Xcel does not make this request directly, but it can be seen by analyzing the timing of the costs and savings that Xcel estimates. Xcel's analysis relies heavily on estimated savings that will only occur if MEC is operated after the expiration of the PPAs. In other words, if MEC is not operated after the PPAs then Xcel's analysis suggests that purchasing the facilities would be a bad deal. Xcel's modeling makes clear that the cumulative financial savings for purchasing MEC would only begin many years in the future. In response to DOC Information Request 7, Xcel provided information about the revenue requirement impacts of purchasing MEC through 2024.[10,11] The OAG then used Xcel's formulas and assumptions to calculate the total cost/savings that Xcel estimates for each year through 2057. This analysis shows that any net benefits Xcel's proposal may produce will not occur for a decade or more:

Table 1
Revenue Requirement Impacts of MEC Purchase

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Capital Cost of Mankato Purchase	46	86	83	81	78	76	75	73	70	74	67	65	65
Fixed Savings of Mankota PPA	(39)	(67)	(68)	(69)	(70)	(71)	(72)	(55)	(31)	(32)	(32)	(33)	(33)
Fixed Cost/Expansion Plan Cost/(Savings)	(0)	0	0	0	(0)	(0)	(0)	0	(0)	0	(0)	(0)	0
VOM/Fuel/Market Cost/(Savings)	(6)	(9)	(10)	(9)	(5)	(7)	(11)	(17)	(22)	(24)	(24)	(25)	(30)
Total Cost/(Savings)	2	9	4	3	2	(3)	(9)	0	16	19	10	7	1

	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Capital Cost of Mankato Purchase	67	68	67	65	64	62	68	62	61	60	60	59	57
Fixed Savings of Mankota PPA	(34)	(34)	(35)	(35)	(36)	(36)	(37)	(15)	0	0	(0)	0	(0)
Fixed Cost/Expansion Plan Cost/(Savings)	(0)	0	(22)	(22)	(22)	(23)	(23)	(53)	(54)	(133)	(135)	(138)	(141)
VOM/Fuel/Market Cost/(Savings)	(32)	(34)	(29)	(28)	(28)	(30)	(34)	(39)	(51)	27	28	28	28
Total Cost/(Savings)	1	(0)	(19)	(20)	(22)	(26)	(26)	(46)	(45)	(45)	(47)	(51)	(56)

	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
Capital Cost of Mankato Purchase	57	50	28	36	29	29	32	40	39	17	0	0	0
Fixed Savings of Mankota PPA	(0)	0	(0)	0	(0)	(0)	0	(0)	(0)	(0)	0	0	0
Fixed Cost/Expansion Plan Cost/(Savings)	(135)	(114)	(116)	(118)	(121)	(123)	(125)	(128)	(120)	(94)	(96)	(87)	(100)
VOM/Fuel/Market Cost/(Savings)	19	43	61	66	60	61	62	53	56	94	107	103	114
Total Cost/(Savings)	(59)	(20)	(27)	(16)	(32)	(33)	(32)	(35)	(25)	17	12	16	14

Xcel's Petition makes the case that purchasing MEC will save customers money—but in reality that savings is only a possibility if MEC is operated far past the expiration of the PPAs. That means that one of the key decisions in this case is whether or not MEC should be a system resource after the PPAs. Whether there is a need for MEC after the expiration of the PPAs, and

[10] DOC Information Request 7, Attachment A, "Breakdown of Savings (As filed)" tab, Exhibit 2.
[11] The Total Cost/(Savings) match those at Petition page 34, Table 8.

whether MEC is the right resource to satisfy that need, is something that should be decided in the IRP.

2. The Resource Decisions Made In The Upcoming IRP Will Impact The Value Of Purchasing MEC.

MEC should also be considered in the IRP because the other resource decisions that will be made in the IRP have a profound impact on the value of buying MEC. Xcel provided Strategist models to support the purchase, one based on the 2015 IRP and one using its "High Renewables Expansion Plan." Xcel claims that buying MEC would produce the following Present Value of Societal Cost ("PVSC") and Present Value Revenue Requirements ("PVRR") under the two different models (assuming that MEC operates into the 2050s):

Table 2
Benefits of MEC Purchase (millions)[12]

	PVSC	PVRR
2015 IRP Renewables	$251	$142
High Renewables	$158	$66

As shown in Table 2, the additional renewables that Xcel modeled in the High Renewables scenario reduce the present value of social benefits by almost 40 percent, and reduce the present value of revenue requirement benefits by more than 50 percent compared to the 2015 IRP base case. This is important, because Xcel makes clear that it believes that its High Renewables scenario is more likely than the 2015 IRP scenario: "[T]he PVRR sensitivity outputs from the High Renewables scenario . . . most closely reflects the impacts to customer bills."[13,14] In other

[12] Petition, Table 4 and 5.
[13] Petition at 33.
[14] One of the reasons that the High Renewables scenario provides much less value is that adding renewables will lead to Xcel having excess capacity. Xcel explained that "under the High Renewables scenario, Figure 2 does not show a capacity benefit for the transfer of ownership until 2034." Petition at 30.

words, the scenario that Xcel believes is most likely for the future reduces Xcel's estimated value of the MEC purchase by almost half.

The key point to take away from this analysis is that the value of purchasing MEC will likely change depending on the outcome of the IRP. The amount of renewables that are included in the IRP can reduce the value of purchasing MEC by as much as half—or even more. It seems likely that other important resource decisions, such as whether the nuclear plants are relicensed, would also change the value of the MEC purchase. There is no way of knowing that impact, however, unless the MEC decision is made within the IRP.

3. Selecting MEC As A System Resource After The PPA Expirations Has An Impact On Other Resource Needs.

The MEC purchase should also be considered in the IRP because purchasing MEC changes the other resources that are selected in the future. The last IRP indicated a need for combustion turbine ("CT") capacity in the 2025 to 2030 time frame. According to Xcel's Petition, purchasing MEC would displace half of Xcel's projected CT capacity need in 2027—declining from 642 MW to 321 MW.[15] In other words, selecting MEC as a long-term system resource for the future changes the other resources that are selected in the modeling. The other resource decisions, though, will be made in the IRP. It would not be reasonable to make one resource decision here, and the rest in another proceeding, when they are so closely inter-related.

This is particularly troublesome because the Commission specifically declined to make long-term decisions about the resource need in the 2025–2030 time frame during the last IRP. Instead of approving the CT generator that Xcel wanted, the Commission changed the Plan to require "the most cost-effective combination of resources consistent with state energy policies, including but not limited to . . . large hydropower, short-term life extensions of Xcel-owned

[15] Petition, Attachment F Table 15 and Table 17 (Errata filing dated December 18, 2018).

peaking units, natural gas combustion turbines, demand response, utility-scale solar generation, energy storage, and combined heat and power."[16] Decisions about peaking plants have become even more complex, as states like California decide to replace peaking plants with batteries.[17]

The Commission was also hesitant in the last IRP to commit to long-term carbon generating resources on a much shorter timeline. This is important to the extent that Xcel is asserting the MEC purchase would resolve a capacity need after the PPAs expire. Purchasing MEC would "acquire" system resources in 2026 and 2039 (after the PPAs expire). In the last IRP, the Commission considered whether new resources should be approved given the retirement of Sherco 1 and 2 in 2023 and 2026. At that time, the Commission stated, "[I]t is premature at this time to determine with specificity the fuel type and location to address the identified 750 MW capacity need."[18] If the Commission was concerned about making decisions for the mid-2020s in the last IRP, those concerns should apply similarly to decisions about resource needs that will not exist until 2039.

C. THE MEC PURCHASE SHOULD BE CONSIDERED IN THE IRP.

Whether the MEC acquisition is a good deal depends on many different factors, all of which will be addressed in the upcoming IRP proceeding. Is it reasonable for Xcel to operate MEC past the existing PPAs? If not, then the MEC purchase looks significantly worse. How much wind and solar will be added to the system? As more renewables are added, the value of

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[16] *In the Matter of Xcel Energy's 2016–2030 Integrated Resource* Plan, Docket No. E-002/RP-15-21, ORDER APPROVING PLAN WITH MODIFICATIONS AND ESTABLISHING REQUIREMENTS FOR FUTURE RESOURCE PLAN Filings, Order Point 4.c. (Jan. 11, 2017), eFile No. 20171-128000-01.

[17] *Draft Resolution E-4949*, CALIFORNIA PUBLIC UTILITIES COMMISSION (Nov. 8, 2018), http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M238/K048/238048767.PDF. "I think that on balance [replacing natural gas peakers with battery storage] is a good choice. But, it's not the obvious one that we would have projected a year ago, two years ago, or even maybe nine months ago." California Public Utility Commission, Voting Meeting, November 8, 2018.

[18] DOCKET NO. E-002/RP-15-21, Order, January 11, 2017 at 9.

purchasing MEC goes down. The answers to these questions depend on many other decisions that will be made during the deeply interrelated IRP process.

The IRP will also allow stakeholders to help develop plausible scenarios on everything from Time of Use rates, Demand Response development, Distributed Energy Resource growth, to the projected costs of storage over time, to future economic growth scenarios. All of these issues could influence the estimated long-term benefits of acquiring a resource like MEC.

Deciding that ratepayers should pay $650 million to purchase MEC in isolation from all of these other, closely related decisions, would be imprudent and unreasonable. To the extent that there is any time pressure to decide on MEC quickly, it is pressure that Xcel has manufactured by delaying the IRP filing. The Commission should deny Xcel's Petition without prejudice, and permit Xcel to present its request to acquire MEC in the upcoming IRP.

II. XCEL HAS NOT DEMONSTRATED THAT IT WOULD BE REASONABLE TO PURCHASE MEC.

To the extent that the MEC purchase could be considered on its own, Xcel's Petition does not demonstrate that it would be consistent with the public interest. There are at least three flaws with Xcel's proposal. First, Xcel's Strategist modeling is not consistent with the ambitious climate goals that Xcel has set for itself, increasing the possibility that Xcel will either fail to achieve its goals or that MEC will become a stranded asset on Xcel's system. Second, Xcel's proposal would shift significant risk onto ratepayers, because the existing PPAs have many protections that would be lost if Xcel purchases the facilities. Third, while Xcel has suggested that purchasing MEC may allow it to close other carbon generating plants, it has not accounted for the increased depreciation costs that it may seek if the purchase does lead to other plant closures.

A. XCEL'S STRATEGIST MODELING ASSUMPTIONS ARE NOT CONSISTENT WITH XCEL'S "85 BY 30" AND "100 BY 50" PLAN.

On December 4, 2018, Xcel publicly announced that it would deliver 100 percent carbon-free electricity by 2050.[19] Xcel simultaneously announced that it would reduce carbon emissions 80 percent by 2030, compared to 2005 levels.[20] These objectives come in addition to Xcel's previously announced goal of being 60 percent renewable and 85 percent carbon free by 2030.[21] Xcel has publicly committed to accomplishing these objectives.

The problem is that the Strategist modeling Xcel conducted for this proceeding is not consistent with these climate objectives. On pages 21 and 22 of its Petition, Xcel explained that it used the following assumptions in its Strategist modeling:

- "Nuclear – the nuclear units are assumed to retire when the current operating licenses expire. The current license for Monticello expires in 2030. The licenses for Prairie Island I and II expire in 2033 and 2034, respectively."
- "Coal - . . . The A.S. King Plant and Sherco Unit 3 are assumed to run through their existing lives of 2037 and 2040, respectively."
- "Sherco CC – A combined cycle unit is assumed to be added at the Sherco site in 2027."

Xcel's modeling suggests that in 2030, it will be operating *at least* Allen S. King, Sherco 3, a gas fired combined cycle plant at the Sherco site, *and* MEC I and II—representing approximately 2887 MW of carbon-generating capacity.[22] Xcel's modeling also assumes that all of the nuclear plants will be retired by 2034 at the latest, removing 1771 MW of carbon-free generation from its system. If these assumptions reflect the reality in the 2030s, it will be nearly impossible for

[19] Company Release, *Xcel Energy Aims for Zero-Carbon Electricity by 2050*, XCEL ENERGY http://investors.xcelenergy.com/file/Index?KeyFile=395990778.
[20] *Id.*
[21] *Climate Change & Greenhouse Gas Emissions*, XCEL ENERGY, https://www.xcelenergy.com/company/corporate_responsibility_report/library_of_briefs/climate_change_and_greenhouse_gas_emissions.
[22] A.S. King: 511 MW; Sherco 3: 876 MW; MEC I: 375 MW; MEC II: 345 MW. In the 2015 IRP, Xcel requested approval of a 780 MW combined cycle plant at the Sherburne County site.

Xcel to be 85 percent carbon free, or reduce its emissions by 80 percent compared to 2005. This is a problem, because Xcel included these assumptions in *all* of the Strategist models it ran.[23]

There are more examples of this type of inconsistency. On pages 2 and 3 of the Petition, Xcel argues that purchasing MEC is consistent with its "85-by-30" plan. On page 3, though, Xcel presents a graph showing that its plan would result in a system with 22 percent coal and gas generation. Xcel cannot have a system with 22 percent coal and gas and also have a system that is 85 percent carbon free. Xcel's High Renewables scenario is also somewhat misleading. In response to OAG Information Request 17, Xcel stated that the High Renewables Scenario would result in "60% of generation coming from renewable sources by 2030."[24] This model was run with the built-in assumption that the nuclear plants will close by 2034 at the latest. A system with 60 percent renewable generation and no nuclear plants does not achieve either "85-by-30" or "100-by-50." Xcel has modeled a High Renewables scenario that does not appear to meet the climate goals it has set for itself.

These inconsistencies raise questions about the value of Xcel's Strategist modeling. All of the Company's Strategist modeling appears to be based on assumptions that are basically incompatible with the climate goals the Company has set for itself. In fact, in response to OAG Information Request 18, the Company confirmed that it did not run *any* Strategist models where the Company was required to accomplish 85 percent by 2030, or 100 percent by 2050.[25] There is little value in Strategist modeling that does not achieve Xcel's goals.

[23] OAG Information Request 18, Exhibit 3.
[24] OAG Information Request 17, Exhibit 4.
[25] OAG Information Request 18, Exhibit 3.

The OAG asked Xcel to explain how it could both buy MEC and achieve its climate goals in OAG Information Request 17.[26] Xcel first pointed to its previous statement that its objectives would require "technologies that are not cost effective or commercially available today." It also said that it "expect[s] technological advances may allow use [sic] to obtain value from MEC through its expect [sic] book life and beyond 2050." It appears that Xcel's plan to buy MEC and also achieve its climate goals relies extensively on the hope that someone will develop new technology allowing it to do so.[27] Xcel offers no specifics to justify its hope that *deus ex* technology will solve this problem. While it is possible that new technologies will be developed that can contribute to the solution, the possible costs are highly uncertain and wishful thinking is not sufficient to justify a $650 million plant purchase.

By using *this* Strategist modeling to support its petition to buy a carbon generating plant and operate it for decades, Xcel is talking out of both sides of its mouth. The Company claims it has a bold vision for reducing its impact on the climate, but even the "High Renewable" scenario it uses to justify the MEC purchase will not achieve those goals. If Xcel buys MEC and still wants to achieve its climate goals, there is a very real possibility that MEC will become a stranded asset—and Xcel admits that its Strategist modeling does not include any quantified risk of stranded assets.[28] To some extent, these flaws further demonstrate that the MEC purchase needs to be considered in the IRP, in the full context of the "85-by-30" and "100-by-50" plans. Either way, it would not be reasonable to approve the MEC purchase based on Strategist modeling that does not reflect the objectives Xcel claims it will accomplish.

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[26] OAG Information Request 17, Exhibit 4.

[27] Even this answer is somewhat inconsistent with Xcel's other responses. In OAG Information Request 11, Xcel stated, "[B]ased on current technology and expectations, there is no substitute that can provide all of the characteristics of a combined cycle." OAG Information Request 11, Exhibit 5. Xcel claims that new technologies will help it meet its goals, but also argues that no new technologies can replace all the characteristics of a combined cycle like MEC. These statements seem to be in direct conflict.

[28] OAG Information Request 18, Exhibit 3.

B. PURCHASING MEC WOULD INCREASE RISKS FOR RATEPAYERS.

Xcel's analysis is also flawed because it fails to account for a wide variety of increased risks that the MEC purchase would cause. These comments address two categories of increased risks. First, the PPAs for MEC, which the Commission has already approved, allocate a significant portion of risk to the owner of the facility. Purchasing MEC would shift that risk back to ratepayers. Second, selecting MEC as a long-term system resource beyond the PPAs would increase the exposure of Xcel's system to natural gas pricing risk.

1. The PPAs Protect Ratepayers From Some Types Of Risk, And Buying MEC Would Shift That Risk To Ratepayers.

The contract terms included in the PPAs include many provisions that insulate ratepayers from certain risks. If Xcel terminates the PPAs and buys MEC, all of those protections will be lost.

a. Forced outage risk.

The approved PPA contracts allocate some risk related to forced outages to the owner. When a forced outage occurs, Xcel and its ratepayers are protected in several ways. First, Xcel does not make capacity payments during forced outages.[29] Second, the owner of MEC is required to provide replacement energy to the NSP node, and the owner is required to pay transmission costs for the replacement power.[30] Third, Xcel is protected from the costs of restoring the facility to service after a forced outage, because the owner is required to pay.

Ratepayers benefit from this negotiated arrangement. According to a summary of information provided by Xcel, MEC was in a forced outage for **[Trade Secret Data Begins]** **[Trade Secret Data Ends]** during 2014 (or approximately **[Trade Secret Data**

[29] OAG Information Request 64, Exhibit 6; OAG Information Request 53, Exhibit 7.
[30] OAG Information Request 65, Exhibit 8.

Begins] **[Trade Secret Data Ends]** percent of the year.)[31] MEC does not have a forced outage so frequently in every year, but 2014 provides an example of what can go wrong. When the plant went into a forced outage, ratepayers were protected from capacity payments, replacement power costs including extra transmission costs,[32] and the cost of bringing the plant out of the forced outage. If Xcel purchases MEC, ratepayers would bear those costs in full. That could be a significant problem, because the costs of forced outages at MEC can be significant. In 2017, for example, Southern Company paid approximately $30 million to recover from what was labeled as a "Forced Outage."[33] It appears that Xcel and its ratepayers were fully insulated from this cost—because of the PPA.

It is also worth noting that MEC has had more outages, in general, than Xcel used for its generic thermal modeling in its Strategist analysis. Xcel's analysis assumes a three percent forced outage rate for generic thermal units, but in 2014, for example, the MEC facility had a forced outage rate [**Trade Secret Data Begins]** **[Trade Secret Data Ends]** as high.[34] The existing PPAs protect ratepayers in the event there are more forced outages than expected. If Xcel purchases MEC and forced outages exceed its expectations, ratepayers would have to shoulder the cost.

b. Plant repair costs.

The PPAs also insulate ratepayers from the risk of major repair work at MEC. Southern has warranties on parts of the MEC facility, which would be transferred to Xcel with a purchase, but the warranties do not cover everything. For example, there is a long term parts and service agreement covering the combustion turbines through 2051, but it appears that the combustion

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[31] OAG Information Request 53, Attachment A, Summary Tab, Exhibit 9.
[32] OAG Information Request 65, Exhibit 8.
[33] OAG Information Request 25.1, Exhibit 10.
[34] Petition, Attachment F at 17.

turbine *generators* are only covered for 10 years.[35] Other parts of the plant may also not be covered for its entire life, or at all.

In the event that any repair costs are not covered by warranty, the *owner* of the plant will bear the cost of the repair. Under the PPA, ratepayers are fully insulated from those costs. If Xcel buys the plant, though, it takes on the uncertainty of having to bear increased costs for repairs that are outside of warranty.[36] The warranties that Xcel discusses do provide value to the owner, but it is important to recognize that they only mitigate the risk of significant repair costs—some risk remains, and Xcel has not fully quantified that risk in its analysis.

c. Decommissioning and remediation costs.

The existing PPA insulates Xcel from the future costs of decommissioning MEC and remediating the MEC site. PPA provision 20.3(C) states, "Upon permanent cessation of generation from the Facility, [Southern Company] shall decommission the Facility, remove the Facility and remediate the Site as, if and when required by Applicable Laws." Power Plant decommissioning costs can be very expensive and uncertain, as seen in Xcel's depreciation filings requesting the reallocation of accumulated depreciation balances between plants.[37] For Xcel's analysis of potential ownership, it assumed that the removal costs will equal **[TRADE SECRET BEGINS] [TRADE SECRET ENDS]** percent of the gross plant costs.[38] Under the PPA, ratepayers are fully insulated from uncertainties associated with the costs of

[35] Petition at 19.
[36] OAG Information Request 35, Exhibit 11
[37] *See In the Matter of Northern States Power Company's Request for Approval of the Annual Review of Remaining Lives Depreciation for Electric and Gas Production and Gas Storage Facilities and Net Salvage Rates for 2015*, MPUC Docket No. E,G002/D-15-46, PETITION at 13-14 (May 18, 2015).
[38] Petition, Attachment G, "Inputs & Assumptions" Tab, Cell F143.

decommissioning and remediation. If Xcel purchases the plant, ratepayers will bear all of those costs and the risk that they could be higher than expected.[39]

d. Heat rate degradation.

According to the Energy Information Administration, Heat Rate is a measure of power plant efficiency.[40] Under the PPA, the owner of the facility is responsible for achieving the predicted heat rates outlined in the PPA. The PPA includes financial incentives to maintain good (low) heat rates: under the existing PPA, Xcel would receive a discounted price for the energy from MEC if MEC does not achieve the projected efficiency thresholds.[41] The existing PPA also requires Southern to pay for heat rate testing costs to ensure compliance with the PPA.[42] These provisions of the PPA protect ratepayers and incentivize the owner to ensure good performance at the plant. Allowing Xcel to purchase the facility would both remove these protections and the enforceable incentive for good performance.

e. Energy emergency adjustments.

The PPA also contains protections for ratepayers in the event that MEC is unavailable during an emergency.[43] If there is an energy emergency called by MISO and MEC is not available to respond, the PPA requires Southern to make energy adjustment payments to Xcel. If Xcel purchases MEC, and the facility is not available during an emergency, then Xcel would bear the full cost of MISO penalties.

[39] OAG Information Request 74, Exhibit 12.
[40] "The heat rate is the amount of energy used by an electrical generator or power plant to generate one kilowatthour (kWh) of electricity." *What is the efficiency of different types of power plants,* UNITED STATES ENERGY INFORMATION ADMINISTRATION, https://www.eia.gov/tools/faqs/faq.php?id=107&t=3.
[41] *See* Petition, Attachment C, ¶ 8.4.
[42] OAG Information Request 69, Exhibit 13.
[43] Petition, Attachment C at 134–35, Exhibit M.

f. Capacity payments.

In its Petition, Xcel explained that: "We also viewed the transaction as an opportunity to secure ownership of an asset that is already part of our generation fleet and to mitigate risks associated with PPA expirations and potentially higher costs for replacement energy and capacity." On its face, this assertion appears reasonable. But there are several problems with it. First, as discussed earlier, Xcel only fully controls MEC through 2026, so it is not a permanent "part of [Xcel's] generation fleet."[44] Second, regarding "potentially higher costs for replacement energy and capacity,"[45] Xcel provided information buried deep in the lengthy PPAs. This information shows that between 2006 and 2019, the cost of capacity actually **[TRADE SECRET BEGINS] [TRADE SECRET ENDS]** between the MEC I PPA and the MEC II PPA.

The existing PPAs also provide protections against a decline in the actual output capability of MEC, as discussed above. Specifically, Xcel provided information showing that it saved **[TRADE SECRET BEGINS] [TRADE SECRET ENDS]** percent on the capacity payments in certain months last year because the plant was not fully available.[46]

The terms of the existing PPAs protect ratepayers from many types of risk. If Xcel purchases the facilities, ratepayers would lose all of those protections.

2. Natural Gas Pricing Risk

Purchasing MEC would also increase risks for Xcel, and ratepayers, because it would increase the system's exposure to fluctuations in natural gas prices in the long-term. Under the existing PPA, Xcel pays for natural gas and delivers it to MEC to produce electricity for Xcel's system. During the term of the existing PPAs (through 2026 for MEC I and 2039 for MEC II),

[44] Petition at 2.
[45] *Id.*
[46] OAG Information Request 48, Exhibit 14.

Xcel is fully exposed to natural gas pricing risk for MEC. So, Xcel's proposal to purchase the facilities results in a neutral risk impact during the term of the PPAs, but it would increase exposure to natural gas price risk *after* the PPAs. Xcel acknowledges that this risk is important to consider, because it provided several natural gas price scenarios in its Petition—low, base, and high price levels. It was not clear from the Petition, however, that Xcel considered the full impact of significantly increased natural gas prices.

In response to OAG Information Request 39, Xcel provided the impact of natural gas price growth rates that are 33 percent higher than its "high" case, and double its base case.[47] Mechanically, the change increased the annual growth rate of natural gas prices from approximately three percent to approximately six percent.[48] Xcel's base forecast estimated a cost of gas of approximately $5 per MMBtu in 2035, while the modeled scenario includes a cost of gas of approximately $10 per MMBtu in 2035.[49]

Recent history suggests that significant spikes in the price of gas are possible. For example, the price of gas increased from $3.31 per MMBtu on October 31 , 2018, to $4.70 per MMBtu on November 21, 2018, a 40 percent increase over the course of only three weeks.[50] There are also regional variations. Xcel provided information for Northern Natural Gas' Ventura Hub, but other locations within the United States have different natural gas prices due to long-term pipeline and other supply and demand impacts. According to the EIA, Natural Gas prices in New England were $10.15/MMBtu as of January 31, 2018.[51]

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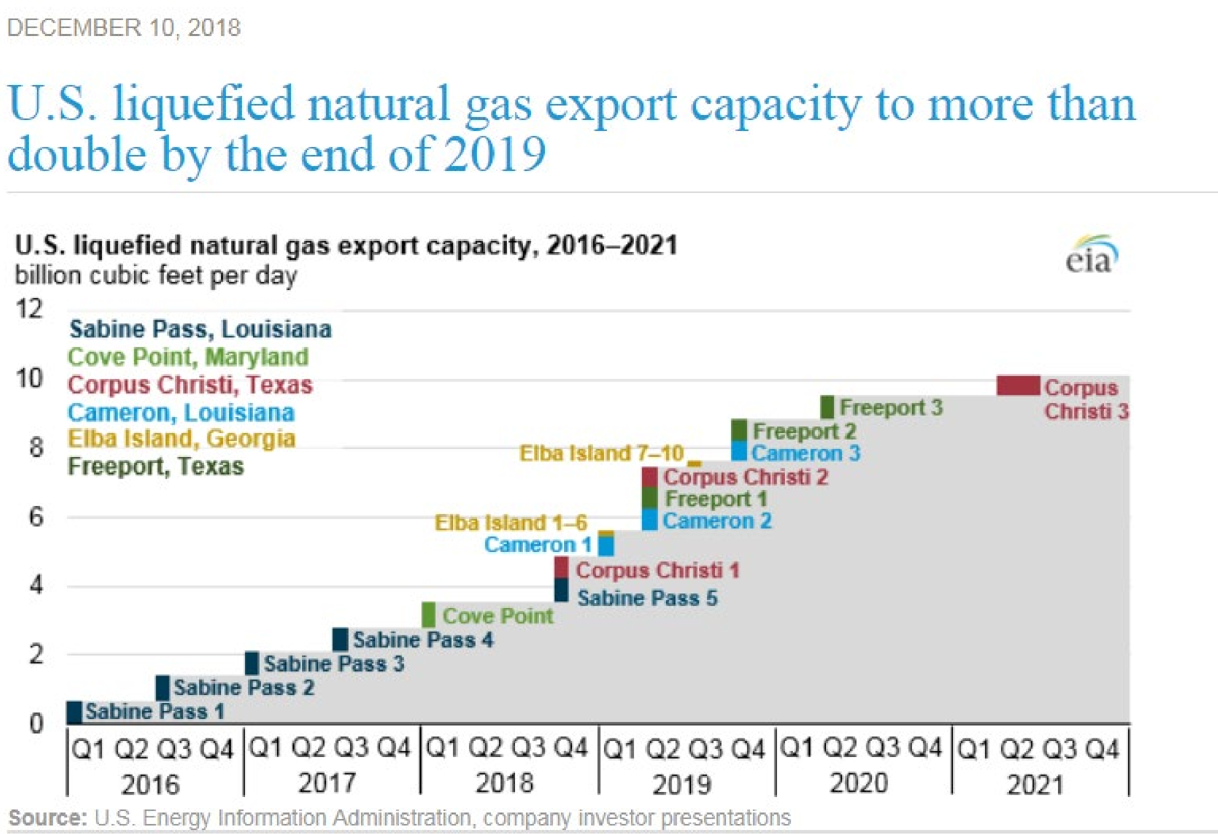
[47] OAG Information Request 39, Exhibit 15.
[48] *Id.*
[49] *Id.*
[50] *Henry Hub Natural Gas Spot Price,* UNITED STATES ENERGY INFORMATION ADMINISTRATION, https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm (accessed Feb. 22, 2019).
[51] *Today In Energy, Daily Prices*, UNITED STATES ENERGY INFORMATION ADMINISTRATION https://www.eia.gov/todayinenergy/prices.php (Accessed Jan. 31, 2019).

In addition to these short term impacts, long-term drivers of natural gas prices include the fact that national energy companies are ramping up to begin exporting significant amounts of liquefied natural gas outside of North America for the first time.[52] The extent to which liquefied natural gas export capacity will increase in the future is not known at this time, but it could become significant.

Figure 1
EIA Information On Natural Gas Export Capacity[53]



Before 2016, exports outside of North America were essentially zero, so any increase in the future would be notable. There is reason to think that export capacity could increase significantly, because natural gas prices outside of North America have historically been

[52] *Today In Energy, U.S. liquefied natural gas export capacity ot more than double by the end of 2019*, UNITED STATES ENERGY INFORMATION ADMINISTRATION, https://www.eia.gov/todayinenergy/detail.php?id=37732.
[53] *Id.*

significantly higher and demand is increasing. In the future, the price of relatively cheap North American natural gas may converge with international prices as North American supply has the opportunity to reach international demand.

A second long-term driver of potentially increased natural gas prices is the increasing reliance on natural gas fired generators across the country. Xcel has made its desire to shift toward natural gas generation clear, but the Company is only repeating a pattern that can be seen all around the country. As natural gas generation increases, demand for natural gas will tend to increase prices. It is difficult to estimate the magnitude of the increase, but it is clear that expansion greater than current expectations will result in a higher natural gas price.

It is important to recognize the risk that increased natural gas prices could have, because increased gas prices could mean that the MEC purchase is a bad deal. In response to OAG Information Request 39, Xcel provided modeling where gas price growth rates were 33 percent higher than its "High" forecast. The results were so significant that it wiped out all of the estimated savings for the MEC purchase.[54]

Table 5: MEC Ownership with High Renewables

	PVSC	PVRR
Capital Cost of Mankato Purchase	915	915
Fixed Savings of Mankota PPA	(555)	(555)
Fixed Cost/Expansion Plan Cost/(Savings)	(372)	(365)
VOM Cost/(Savings)	(39)	(35)
Fuel Cost/(Savings)	(3)	4
Market Cost/(Savings)	164	158
CO2 Cost/(Savings)	4	
Externalities Cost/(Savings)	(36)	
PPA Starts/Own Start Fuel Cost/(Savings)	(44)	(44)
Total Cost/(Savings)	33	78

[54] OAG Information Request 39, Exhibit 15.

There is no way to know with certainty what gas prices will be in the future, but there is historical precedent for prices much higher than today, and some signals that long-term drivers could lead to price increases. Allowing Xcel to purchase MEC would increase the system's exposure to natural gas prices, at a time far in the future where it is difficult to predict what will happen.

The conclusion to draw from this analysis is not just that there are risks related to natural gas pricing—that is plain to see. The more important point is that purchasing MEC would increase the system's exposure to that risk in the future, after the PPAs expire—so far in the future that existing natural gas price estimates are truly questionable. There is no reason to believe that any particular natural gas price forecast made today will make any sense twenty years from now, and that is why it is important to consider the possibility that gas prices could increase significantly. Ending the PPAs in 2026 and 2039 would reduce the system's reliance on gas; approving the MEC purchase would increase it. That is a risk that should be considered very carefully, because it may not be fully accounted for in Xcel's modeling.

C. Xcel Suggests That One Benefit Of Purchasing MEC Would Be Its Impact On Other Carbon-Generator Closures, But Has Not Modeled The Costs Of Early Retirements.

At several points in its Petition, Xcel suggests that allowing it to purchase MEC would encourage the Company to consider early retirement or reduced utilization of other carbon generating facilities that it owns. On pages 3 through 4 of the Petition, Xcel states, "[S]ecuring ownership of the plant will result in the displacement of more expensive and more carbon-intensive generation in the 2020s. We believe this will provide additional flexibility as we plan for the retirement of our baseload fleet . . . ."[55] Xcel continues, "[T]he certainty of obtaining the

[55] Petition at 3–4.

capacity and energy from MEC during this period, provide a path to accelerating the retirement of existing baseload units on our system."[56] If Xcel is allowed to purchase MEC, it appears that the Company would also contemplate retiring some of its other carbon generating plants early. Given the problems with achieving the "85-by-30" and "100-by-50" goals, as discussed above, early retirement appears to be a likely path to achieve Xcel's climate goals.

While retiring baseload plants early may provide environmental benefits, it is important to recognize that early retirement could also lead to increased costs. When generating plants are retired before they are fully depreciated, the remaining costs are "stranded assets"—so called because utilities do not always have a vehicle to recover those costs. In a normal business operation, shareholders would simply have to shoulder the loss and move on. Xcel, unlike a normal business, would be very likely to request recovery of undepreciated assets, or to request accelerated depreciation in order to recover the full plant balance early. While there is no guarantee that those requests would be approved,[57] it is important to recognize that they could lead to significant costs to ratepayers.

The problem is that Xcel has not included any of these early retirement costs in the analysis to support the MEC purchase. In response to OAG Information Request 11, Xcel confirmed, "[T]he Strategist model does not include any quantified risk related to stranded asset costs."[58] Xcel is dangling the possibility that purchasing MEC would encourage it to close other carbon generating plants early, but is not squarely addressing the real costs of doing so. Accelerating the depreciation of the King or Sherco plants would likely cost ratepayers millions

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[56] *Id.* at 4.
[57] *See* Minn. Stat. § 216B.16, subd. 6 ("If the commission orders a generating facility to terminate its operations before the end of the facility's physical life in order to comply with a specific state or federal energy statute or policy, the commission *may* allow the public utility to recover the positive net book value of the facility as determined by the commission.)
[58] OAG Information Request 11, Exhibit 5.

of dollars, but Xcel has not provided any information about those potential costs. It is important to understand the potential costs when making decisions that could lead to those outcomes. Without that analysis, and some clearer statement on the possible impact the MEC purchase could have on early retirements,[59] Xcel's proposal to purchase MEC is incomplete.

D. If It Is Not Moved To The IRP, Xcel's Petition Should Be Denied.

The primary recommendation in these Comments is that the Commission should deny Xcel's Petition without prejudice, and allow Xcel to present its request in the context of the upcoming IRP filing. If the MEC purchase is considered on the merits outside of the IRP, though, then the Commission should recognize that there are flaws with Xcel's analysis. First, Xcel's Strategist modeling is largely based on a set of assumptions that is not consistent with the Company's long-term climate goals. Second, buying out the PPA would shift some risks to ratepayers, which are allocated to the plant owner under the PPA. Third, Xcel suggests that allowing the MEC purchase would permit early retirement of other carbon generators, but has not included the costs of early retirement in its analysis. As a result of these flaws, Xcel's analysis is incomplete and does not demonstrate that the MEC purchase would be consistent with the public interest.

III. IF THE MEC PURCHASE IS APPROVED, THE COMMISSION SHOULD PLACE CONDITIONS TO PROTECT RATEPAYERS.

If the Commission approves the Company's request to approve the purchase, it should place conditions to protect ratepayers from the most significant potential harms. First, the Commission should prohibit Xcel from recovering transaction costs. Second, the Commission

[59] It is also a problem because Xcel offers no specific plans about what impact the MEC purchase would make. It would be one thing if Xcel had clearly stated that purchasing MEC would allow early retirement of specific carbon-producing generators—doing so would establish clear expectations. In this scenario, though, there would be no certainty about when, or even if, any units would be retired.

should prohibit Xcel from recovering the acquisition premium. Third, the Commission should place limitations to ensure that the MEC purchase actually produces the benefits that are needed to offset the costs. Finally, the Commission should order that Xcel will not be permitted to recover undepreciated plant balances if MEC is retired before the end of its useful life.

A. Xcel Should Not Recover Transaction Costs.

Xcel states that transaction costs will total $507,000.[60] These costs include legal fees, state and federal regulatory fees, and other acquisition related costs the Company will incur before the close of the transaction. Xcel argues that it should be allowed to "capitalize these costs as part of the overall asset acquisition"[61] and is proposing to include this amount in rate base.[62] Xcel's proposal should be denied for several reasons.

First, fees and legal costs are not infrastructure costs and should not be capitalized in rate base. It makes no sense to depreciate costs for legal fees and costs because they are not a part of the actual plant. They are not "used and useful" in the way that other assets placed in to rate base are.

Second, the Commission has taken similar actions in other merger proceedings.[63] While Xcel styles the transaction as a purchase, technically it will be purchasing the business that owns MEC and then incorporating that business into the Xcel family of corporations. It makes sense to apply similar merger conditions because this is a merger.

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[60] OAG Information Request 7, Exhibit 16.
[61] DOC Information Request 3, Exhibit 17.
[62] Petition, Attachment I.
[63] *In the Matter of a Request for Approval of the Merger Agreement Between Integrys Energy Group, Inc. and Wisconsin Energy Corporation*, Docket No. G-011/PA-14-664, ORDER APPROVING MERGER SUBJECT TO CONDITIONS (June 25, 2015); *see also* In *the Matter of the Petition of CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, for Approval of an Affiliated Interest Agreement between CenterPoint Energy Minnesota Gas and Minnesota Limited*, Docket No. G-008/AI-18-517, STIPULATION OF CENTERPOINT ENERGY MINNESOTA GAS (Oct. 26, 2018).

B. THE ACQUISITION PREMIUM SHOULD NOT BE INCLUDED IN RATE BASE.

The Company states that the purchase price includes an acquisition premium of $96 million, which represents the amount above and over the net book value of $565 million for the assets as shown on Southern Power's books.[64] The Company claims that due to the potential ratepayer benefits from this transaction, it should be allowed to rate base this amount with a full return over the useful life of the plant.[65] As with the transaction costs, Xcel's request should be denied. Xcel has not demonstrated that the acquisition premium is attributable to the original cost of the asset or infrastructure that will be used and useful in providing service to ratepayers. It is not plant-in-service, and should not be placed into rate base.

Furthermore, according to the FERC Uniform System of Accounts for Electric Plant Instruction No. 5, only the original cost of the plant is accounted for in the FERC account 101 - Electric Plant-in-Service account and any amount remaining (e.g. the acquisition premium of $96 million) is accounted for in FERC account 114, Electric Plant Acquisition Adjustment.[66] While FERC has allowed for recovery of acquisition premiums in some cases, it was under different circumstances that do not apply in this docket. The other instances in which FERC has allowed recovery of acquisition premiums were under settlements, or were for purchases that had already been reviewed and approved by the state commission after an extensive notice-and-comment process and competitive bidding (e.g. RFPs).[67] This guidance recognizes that only the original cost of the plant should be accounted for in the Plant-in-Service account. The Commission's

[64] Petition, Attachment I.
[65] Petition at 45.
[66] *See* Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act, 18 C.F.R. § 101.5.
[67] DOC Information Request 4, Exhibit 18.

Rules require Xcel to follow FERC's Uniform System of Accounts,[68] which dictates that the acquisition premium should not be included in rate base.

C. XCEL SHOULD BE REQUIRED TO PRODUCE THE BENEFITS REQUIRED TO BALANCE THE INCREASED COSTS AND RISKS.

As discussed above, Xcel's proposal would result in increased costs in the short-term. Xcel argues that this will be offset by ratepayer benefits in the long-term, including avoided costs from the termination of the existing PPAs,[69] revenues from energy sales that ratepayers will receive from the excess capacity that will occur,[70] as well as reduced MEC operating and maintenance costs under Company ownership as compared to these costs under the PPA.[71] There is no guarantee, however, that these benefits will ever arrive. Rather than rely solely on the Company's statements of the potential benefits, the Commission should take action to ensure that the ratepayer benefits which the Company is using to justify this purchase are preserved.

Specifically, there are some potential cost savings that are directly under the Company's control—the reduced levels of operating and maintenance costs, future levels of property tax, and future levels of capital costs the Company has included in the Strategist model for MEC. In order to ensure that ratepayers receive the benefits that Xcel promises, the Commission should cap the recovery of O&M costs for MEC at the levels the Company used for its Strategist modeling, which reflects a 2 percent inflation rate per year from now until 2054.[72] Additionally, the PUC should cap recovery of property taxes and capital costs associated with ongoing capital

[68] Minn. Rules 7825.0200.
[69] Petition at 27.
[70] *Id.* at 25.
[71] OAG Information Request 20, Exhibit 19.
[72] Petition Attachment G; OAG Information Request 19, Exhibit 20.

expenditures and the capital projects identified in the Strategist model, at those same levels from now until 2054.[73]

This protection is necessary in order to balance the increased costs and risks of this plant purchase. As shown in the Company's internal reports resulting from its due diligence process, there are significant operational and equipment risks that the Company is taking on with this purchase.[74] The Company's Tax Services Summary Report on October 23, 2018 concluded that there is a risk to the Company that the property tax exemption under Minnesota Statutes section 272.02, subdivision 56 may not transfer to Xcel's ownership and could increase the property tax amount from $155,000 annually to $4.5 million annually.[75] Additionally, the Company's Energy Supply department concluded in its October 26, 2018 report that the steam turbine "has some known flaws, and limited US support"[76] and that "replacement blades purchased and will be delivered in 2019, but at this time there is no permanent solution, and inspection requirements/failure risk will continue."[77] The Company's Site Visit Report on October 12, 2018, also concluded that there are approximately $2.9 million of future adders that will need to be incurred in order for MEC to meet the operating conditions at other NSP plants; in addition, the report also notes the requirement for "significant effort to integrate the existing drawing data and equipment database base into NSP standard."[78] Other risks are summarized in the Company's response to OAG Information Request 15.[79]

[73] Petition Attachment G.
[74] OAG Information Request 15, Exhibit 21.
[75] OAG Information Request 15, Attachment E, Exhibit 22.
[76] *Id.*
[77] *Id.*
[78] OAG Information Request 15, Exhibit 21.
[79] *Id.*

The Company states that it has considered all risks and has incorporated a reasonable level of operating and maintenance cost,[80] as well as a reasonable level of capital expenditures to address these risks in its Strategist model.[81] Xcel claims that these factors were included in its Strategist modeling. To the extent that the Company's Strategist modeling is inclusive of probable future costs to maintain and operate MEC, and provides sufficient justification for the approval of the purchase, the Commission will need to ensure ratepayers will realize these benefits and hold the Company accountable to its cost assumptions.

D. RATEPAYERS SHOULD BE PROTECTED FROM STRANDED COSTS.

As discussed above, allowing Xcel to purchase MEC as a long-term system resource creates a risk that MEC will become a stranded asset. The possibility of new technology, including renewables plus storage, the risk of new climate regulations, and Xcel's ambitious climate goals, mean that MEC may eventually be retired before the end of its useful life. If Xcel receives power through a PPA with another company, then ratepayers are completely insulated from the risk of stranded costs through the PPA terms. If Xcel purchases the plants, ratepayers will be subject to the risk of paying for a system resource that is shut down early.

Xcel, however, has almost no skin in the game. If Xcel is allowed to purchase MEC, it will recover the costs through a rider and start earning a return on hundreds of millions of dollars in rate base. If MEC is closed early, Xcel will request recovery of accelerated depreciation costs, armed with the argument that the Commission approved the purchase. The MEC purchase creates very little risk for shareholders, because all of the risk is borne by the ratepayers who will have to pay if the deal turns out badly in the long run. From an economic perspective, Xcel's proposal is entirely rational—the Company has the opportunity to earn a return on a large system

[80] Petition Attachment G; DOC Information Request 8, Exhibit 23.
[81] OAG Information Request 13, Exhibit 24.

asset. If the MEC purchase is approved, the Commission should take action to balance the scales between shareholders and ratepayers.

If MEC is approved, the Commission should determine at this time that Xcel will not be permitted to recover any stranded costs should either facility be retired before the end of its useful life. Xcel should not be permitted to accelerate the depreciation of the facilities. The Commission should also make clear that future resource decisions about MEC will be made on their own merits, without regard to whether Xcel would suffer losses in the event of an early retirement. These decisions would place some of the risks of the MEC purchase on the Company. The Commission should not allow the purchase to move forward without requiring Xcel to put some skin in the game. If Xcel is not willing to do so, then that is a sign that Xcel sees risks in the transaction that it is trying to shift onto ratepayers.

CONCLUSION

The Commission should reject Xcel's Petition without prejudice, and permit Xcel to raise the issues again in the context of the IRP so that they can be considered with the full context of other resource planning decisions.

If the Commission does not move the acquisition decision to the IRP, then Xcel's Petition should be rejected because Xcel has not demonstrated that it would be in the public interest to purchase MEC. Xcel's Strategist modeling is questionable because it is not designed to accomplish Xcel's publicly stated climate goals. Purchasing MEC would eliminate many of the risk protections in the existing PPAs, and expose Xcel's system to increased risk of natural gas price increases in the future. Xcel has also failed to model any increased costs for other plant retirements that could occur if MEC is purchased. In light of these factors, Xcel has not demonstrated that purchasing MEC would be in the public interest.

If the Petition is approved, the Commission should place conditions to protect ratepayers. The Commission should ensure that transaction costs and acquisition premiums are not recovered from ratepayers, because they provide no benefit. In addition, the Commission should make clear that Xcel will not be permitted to recover undepreciated plant balances in the event that MEC is retired before the end of its useful life. These conditions would not sufficiently resolve all of the problems with Xcel's proposal, but they are the minimum necessary to ensure that ratepayers are not harmed.

Dated: March 5, 2019

Respectfully submitted,

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ATTORNEYS FOR OFFICE OF THE
ATTORNEY GENERAL—RESIDENTIAL
UTILITIES AND ANTITRUST DIVISION

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☒ **Public Document**

Xcel Energy		Information Request No. 24
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:

For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition.

Please provide the following information:

- Identify the date on which Xcel became aware that Southern Company was considering selling MEC;
- Identify the date on which Xcel entered negotiations with Southern Company to purchase MEC;
- Identify the date on which Xcel submitted a bid to purchase MEC from Southern Company;
- Identify the date on which Southern Company responded to any bid from Xcel for MEC;
- Identify the date on which there was an agreement in principle for Xcel to purchase MEC from Southern Company.

Response:

- Identify the date on which Xcel became aware that Southern Company was considering selling MEC:
  - August 23, 2018
- Identify the date on which Xcel entered negotiations with Southern Company to purchase MEC:
  - August 31, 2018
- Identify the date on which Xcel submitted a bid to purchase MEC from Southern Company:
  - September 7, 2018

- Identify the date on which Southern Company responded to any bid from Xcel for MEC:
  - Several phone discussions occurred in the month of September, 2018.
- Identify the date on which there was an agreement in principle for Xcel to purchase MEC from Southern Company:
  - October 2, 2018, non-binding letter of intent entered between Southern Power and Xcel Energy.

Preparer:	Jerry Dittman
Title:	Manager, Business Development
Department:	Corporate Development
Telephone:	612-215-4568
Date:	January 24, 2019

EXHIBIT 2
TRADE SECRET IN ITS ENTIRETY

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Xcel Energy		Information Request No. 18
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition at 21.

Xcel states that the Strategist model it ran in considering the MEC purchase assumed:

- Monticello and Prairie Island would be retired by 2034;
- AS King would remain online until 2037;
- Sherco 3 would remain online until 2040; and
- A Sherco CC would be added in 2027.
- Xcel states that this model then selected the MEC I and II resources after the expiration of their PPAs.
- How will Xcel accomplish its 85% by 2030 and 100% by 2050 given these assumptions?
- Did Xcel run any Strategist modeling that did not include these all of these assumptions? Did Xcel run any Strategist modeling that include only some of these assumptions?
  - o Please describe the modeling and the results.
- Did Xcel run any Strategist modeling in which the model was required to achieve 85% by 2030 or 100% by 2050?
  - o Please describe the modeling and the results.
  - o Was MEC selected in any case following the expiration of the PPAs?

Response:

- *Xcel states that this model then selected the MEC I and II resources after the expiration of their PPAs.* This is incorrect. The Company ran two scenarios: one where the PPAs continued under their current terms and expire in 2026 and 2039 without extension, and another where the Company assumed ownership of the facility in June 2019. These two scenarios were run under two assumptions for future renewable growth: one where the Company maintained the current committed levels of renewables, and another where the Company added a high level of future renewables.

- *How will Xcel accomplish its 85% by 2030 and 100% by 2050 given these assumptions?*
  See our response to OAG IR No. 17.
- *Did Xcel run any Strategist modeling that did not include these all of these assumptions? Did Xcel run any Strategist modeling that include only some of these assumptions?*
  - *Please describe the modeling and the results.*

  No, the Company did not run any models that did not include these assumptions.
- *Did Xcel run any Strategist modeling in which the model was required to achieve 85% by 2030 or 100% by 2050?*
  - *Please describe the modeling and the results.*
  - *Was MEC selected in any case following the expiration of the PPAs?*

  No, the Company did not run any models where the Company was required to achieve 85% by 2030 or 100% by 2050. However, the high renewable future scenario is consistent with a future that could achieve 85% by 2030.

Preparer:	Jon Landrum
Title:	Manager, Resource Planning Analytics
Department:	Resource Planning
Telephone:	303.571.2765
Date:	January 24, 2019

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☒ **Public Document**

Xcel Energy	Information Request No. 17
Docket No.:	IP6949,E002/PA-18-702
Response To:	Office of Attorney General
Requestor:	Ryan P. Barlow
Date Received:	January 11, 2019

<u>Question:</u>
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Xcel Energy aims for zero-carbon electricity by 2050, 12/4/18, https://www.xcelenergy.com/company/media_room/news_releases/xcel_energy_aims_for_zero-carbon_electricity_by_2050; Petition at 20.

Xcel states that its goal is to have 85 percent carbon-free generation by 2030. Xcel has publicly stated that its corporate goal is to have 100% carbon free generation by 2050. Xcel further states that its strategist modeling on the MEC purchase ran out to 2057; and that it "expects to be able to utilize MEC I through 2046 and MEC II through 2054."

- How can Xcel possibly achieve its 100% carbon free generation goal if it continues to operate MEC II past 2050?
- How does Xcel intend to achieve its 85% by 30 goal if it operates both MEC I and MEC II past 2030?

<u>Response:</u>
As stated in the press release, "achieving the long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today." For purposes of resource planning modeling, the standard book life for a combustion turbine is 35 years, thus the new turbine would have an expected operational life through 2054. We expect that technological advances may allow use to obtain value from MEC through its expect book life and beyond 2050.

The Company believes it can affordably and reliable achieve 85% carbon reduction by 2030 including operation of MEC 1 and MEC II. As discussed on pages 23 and 24 of our petition, we analyzed MEC under a "High Renewables Scenario" in order to evaluate the proposed transfer of ownership under a scenario that can achieve our 85% carbon-free goal. The High Renewables Scenario results in 60% of generation coming from renewable sources by 2030 and a reduction in carbon of approximately 80% from 2005 level by 2030. While the preferred plan and specific decision related to early retirement of coal will be made in the IRP, the High Renewables Scenario shows the impact of the proposed transfer of ownership under a high-renewable and low-carbon future consistent with our 85% carbon-free goal.

Additionally, a Strategist Model was run to evaluate the impact of retiring the Mankato Energy Center in 2050 to align with the Company's recent press release. The table below summarizes the results:

	PVSC	***Deltas***
Reference Case	55,829	
Mankato Owned	55,578	(251)
Mankato Owned 2050	55,600	(229)
HRE		
Reference Case	53,115	
Mankato Owned	52,956	(158)
Mankato Owned 2050	52,977	(138)
	PVRR	
Reference Case	45,376	
Mankato Owned	45,233	(142)
Mankato Owned 2050	45,253	(122)
HRE		
Reference Case	44,693	
Mankato Owned	44,627	(66)
Mankato Owned 2050	44,670	(23)

While retiring MEC early does result in a cost increase from the proposed Mankato Owned alternative, it still results in a significant net savings over the PPA base case.

Preparer: Jon Landrum
Title: Manager, Resource Planning Analytics
Department: Resource Planning
Telephone: 303.571.2765
Date: January 24, 2019

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Xcel Energy		Information Request No. 11
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Strategist modeling.

Does the Company's Strategist model include any quantified risk related to the possibility that MEC I or II could become stranded assets. If so, explain it and the impact it has on the outcome of the model.

Response:
No, the Strategist model does not include any quantified risk related to stranded asset costs. The Company is confident that the Mankato resource will serve as a important flexible resource that provides firm capacity for the full useful life of the asset. It is impossible to predict when or if new technologies will come along that can perfectly mimic all of the characteristics of a combined cycle in a more economic and less carbon intensive way. However, based on current technology and expectations, there is no substitute that can provide all of the characteristics of a combined cycle and therefore, we believe that the risk of MEC I and MEC II becoming stranded is low.

Preparer:	P.J. Martin
Title:	Director, Resource Planning
Department:	Resource Planning
Telephone:	612-321-3065
Date:	January 24, 2019

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Xcel Energy		Information Request No. 64
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: MEC I PPA and MEC II PPA.

Would NSP pay for Capacity if the Facility is unavailable due to a Forced Outage?

Response:
No.

Preparer:	Jeff Klein
Title:	Manager, Structured Purchases
Department:	Purchased Power
Telephone:	303-571-2732
Date:	January 25, 2019

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Xcel Energy		Information Request No. 53
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: Attachment B, page 61 of 123

Attachment B states: "When Forced Outages occur at the Mankato Facility, Seller shall notify NSP's SCC of (i) the existence of the Forced Outage immediately, and (ii) the nature, cause (if known) and expected duration of the Forced Outage as soon as reasonably practical, but in no event later than one (1) hour after the Forced Outage occurs. Seller shall immediately inform NSP's SCC of changes in the expected duration of the Forced Outage for the duration of each Forced Outage."

Provide the date and time of each Forced Outage that has occurred at MEC.

Provide the cause and duration of each.

Explain the extent to which Xcel pays for Capacity during an outage.

Response:
The Company objects to this request as overly broad and unduly burdensome, as the time required to gather this information for the period running back to the MEC I commercial operation date would exceed the time allowed by this request. However, we were able to obtain the following information back to 2013:

- Please see Attachment A to this response.
- Please see Attachment A to this response.
- Xcel Energy does not pay for Capacity during a forced outage.

Please note Attachment A to this response is marked as "Non-Public," as it contains information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from

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its use. Based on its economic value, the Company maintains this information as trade secret.

The Attachment to this response is marked as "Not-Public" in its entirety. Pursuant to Minn. Rule 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** Attachment A is a list of dates and times, durations and cause of each Forced Outage that has occurred at MEC I.
2. **Authors:** Power Operations
3. **Importance:** Attachment A contains information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Based on its economic value, the Company maintains this information as trade secret.
4. **Date the Information was Prepared:** January 17, 2019

Preparer:	Meg Nguyen	Jeff Klein
Title:	Manager, Power Operations	Manager, Structured Purchases
Department:	Power Operations	Purchased Power
Telephone:	3035716941	303-571-2732
Date:	January 25, 2019	

Docket No. IP6949, E002/PA-18-702
OAG IR No. 53
Attachment A

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The Attachment to this response is marked as "Not-Public" in its entirety. Pursuant to Minn. Rule 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** Attachment A is a list of dates and times, durations and cause of each Forced Outage that has occurred at MEC I.
2. **Authors:** Power Operations
3. **Importance:** Attachment A contains information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Based on its economic value, the Company maintains this information as trade secret.
4. **Date the Information was Prepared:** January 17, 2019

[TRADE SECRET BEGINS

TRADE SECRET ENDS]

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Xcel Energy — Information Request No. 65

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 14, 2019

Question:
Re: Attachment C, , Page 21 of 143

Attachment C states: "Delivery of Contract Energy from an Alternate Generation Source must be made to either NSP.NSP or NSP.MEC ("Alternate Delivery Point(s)")."

Explain the extent to which Seller (Southern Company) would pay for transmission to NSP.NSP or NSP.MEC under Section 7.3.

Response:
Delivery of contract energy from an Alternate Generation Source must be made to specific points. The responsibility for delivery to a specific MISO node carries with it a responsibility for all costs to get that energy to that point.

Preparer: Jeff Klein
Title: Manager, Structured Purchases
Department: Purchased Power
Telephone: 303-571-2732
Date: January 25, 2019

EXHIBIT 9
TRADE SECRET IN ITS ENTIRETY

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Xcel Energy		Information Request No. 25.1
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Joseph Meyer	
Date Received:	January 28, 2019	

Question:
Re: Response to OAG Information Request 25

[Trade Secret Data Begins…

…Trade Secret Data Ends]

Response:
Attachment A to OAG IR No. 25 is an expense sheet of capital expenditures for Southern Company. As such, major outage expenses are an obligation of the owner of the facility and none of these costs were passed on to our customers.

Preparer:	Jeff Klein
Title:	Manager, Structured Purchases
Department:	Purchased Power
Telephone:	303-571-2732
Date:	February 7, 2019

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Xcel Energy		Information Request No. 35
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: Petition, Page 19

Petition states: "Second, each of the combustion turbines for MEC I and MEC II are covered by long term parts and service agreements with Siemens (LTPA). The LTPA offers significant long term benefits to the reliable operation of the facility by providing a comprehensive warranty on major equipment for each combustion turbine for 35 years (expires 2051), with Siemens providing parts and service during the term of that contract. Associated with the LTPA is a 10-year extended (prorated) warranty for each combustion turbine generator. Siemens will also have a resident manager on site at the Mankato facility through 2021. The cost of the LTPA has been included in the economic evaluation of our acquisition with risk mitigation value derived from the additional combustion turbine and generator warranties, OEM bulletin implementation, technical support and remote performance monitoring."

In the event that equipment fails after the LTPA or warranty expires, explain who would pay for expenses:

- Under the PPA; and
- Xcel ownership.

Define, Explain and Quantify the "risk mitigation value."

Response:

- In each case (PPA and Company ownership), to the extent any such failure is not covered via alternative coverage, the owner of the facility is responsible for such costs.
- Risk mitigation value relates to the risks assumed by Siemens with respect to their obligations under the LTPA in exchange for payment by the owners of MEC I and MEC II under the LTPA that otherwise will exceed the cost of

parts and service if supplied without the benefit of warranty. That value has not been quantified for this particular transaction, as it requires actuarial expertise in terms of determining the probability of failure, cost of repair and ability to socialize those costs across a population of facilities with similar warranty coverage. Experience in the operation of other generating facilities in our service territories has generally resulted in the view that the additional cost of LTPA warranties will by their nature levelize the total expenditures on parts over the lifetime of a plant (via the periodic payment structure of those contracts), and the lower initial cost of non-warrantied service parts is offset by occasional failures or unexpected replacements *when taken in the aggregate across a fleet of operating assets*. Presumably the risk mitigation value equates to the excess cost of service and parts provided under the LTPA vs. a base case where no warranty exists and taken over the life of the project. While it can vary on a case by case basis, there is additional value from an operations perspective in incenting parts and service providers to maintain quality and performance in their product offerings with warranty coverage obligations vs. demanding strictly the lowest price and potentially driving down quality and performance.

Preparer:	Jerry Dittman
Title:	Manager, Business Development
Department:	Corporate Development
Telephone:	612-215-4568
Date:	January 25, 2019

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Xcel Energy		Information Request No. 74
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: Attachment C, Page 66 of 143, Section 20.3(C)

Attachment C states: "Upon permanent cessation of generation from the Facility, Seller shall decommission the Facility, remove the Facility and remediate the Site as, if and when required by Applicable Laws."

Under the PPA, explain who would pay for all costs described under 20.3(C), including decommissioning and removing the Facility and remediating the Site.

Response:
Seller would pay for all costs described under 20.3(C), including decommissioning, removing the Facility, and remediating the Site.

Preparer:	Jeff Klein
Title:	Manager, Structured Purchases
Department:	Purchased Power
Telephone:	303-571-2732
Date:	January 25, 2019

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Xcel Energy Information Request No. 69

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 14, 2019

Question:
Re: Attachment C, Page 33 of 143

Attachment C states: "Seller shall be responsible for the full scope of heat rate testing, including but not limited to furnishing the test instrumentation set-up, data gathering, fuel analysis, data analysis and the issuance of a final report."

Excluding the cost of fuel, explain whether the Seller will be "responsible" for the cost of the Heat Rate Testing, including any necessary Heat Rate Testing resulting from a Failed Heat Rate Test.

Response:
Excluding the cost of fuel and NSP observation costs, the Seller is responsible for all costs including but not limited to furnishing the test instrumentation set-up, data gathering, fuel analysis, data analysis and the issuance of a final report.

Preparer: Jeff Klein
Title: Manager, Structured Purchases
Department: Purchased Power
Telephone: 303-571-2732
Date: January 25, 2019

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Xcel Energy		Information Request No. 48
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: Attachment B, Page 48 of 123, Section 8.1(C) and (D)

[Trade Secret Data Excised]

Explain and Quantify how the capacity prices were calculated.

- Include explanation and quantification of the year 1 capacity price of ***[Trade Secret Data Excised]***
- Include explanation of the annual increases ranging from approximately ***[Trade Secret Data Excised]***
- Include explanation and quantification of the year 20 price of ***[Trade Secret Data Excised]***

Provide the actual monthly capacity payments that have occurred over the course of this agreement. Include the actual numbers used in the referenced formula:

[NC x CP x AAQ] = Capacity Payment.

Provide each RAF included in the AAQ.

Response:
The capacity prices and annual increases were as bid by Calpine in the 2003 competitive resource acquisition process and as approved by the Commission.

Please see Attachment A to this response for actual monthly capacity payments and input numbers for the referenced formula above that occurred for this contract from the last five years.

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Please note the attachments to this response are marked as "Non-Public," as they contain information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Based on its economic value, the Company maintains this information as trade secret.

Preparer:	Keith Howe
Title:	Resource Planning Analyst
Department:	Resource Planning
Telephone:	612-330-6252
Date:	January 25, 2019

PUBLIC VERSION

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	Net Capability (MW)	Contract Capacity Price	AAQ	RAF	Calculated	Invoice Amount	Invoiced Capacity Rate
	A	B	C	D	E = A*(B*1000)*C	F	G = (F/A)/1000
	[PROTECTED DATA BEGINS						
Jan-14							
Feb-14							
Mar-14							
Apr-14							
May-14							
Jun-14							
Jul-14							
Aug-14							
Sep-14							
Oct-14							
Nov-14							
Dec-14							
Jan-15							
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Mar-15							
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May-15							
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Jul-15							
Aug-15							
Sep-15							
Oct-15							
Nov-15							
Dec-15							
Jan-16							
Feb-16							
Mar-16							
Apr-16							
May-16							
Jun-16							
Jul-16							
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Oct-16							
Nov-16							
Dec-16							
Jan-17							
Feb-17							
Mar-17							
Apr-17							
May-17							
Jun-17							
Jul-17							
Aug-17							
Sep-17							
Oct-17							
Nov-17							

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Docket No. IP6949, E002/PA-18-702
OAG IR No. 48
Attachment A - Page 2 of 2

	Net Capability (MW)	Contract Capacity Price	AAQ	RAF	Calculated	Invoice Amount	Invoiced Capacity Rate
	A	B	C	D	E = A*(B*1000)*C	F	G = (F/A)/1000
Dec-17							
Jan-18							
Feb-18							
Mar-18							
Apr-18							
May-18							
Jun-18							
Jul-18							
Aug-18							
Sep-18							
Oct-18							
Nov-18							
Dec-18							

PROTECTED DATA ENDS]

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Xcel Energy		Information Request No. 39
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 14, 2019	

Question:
Re: Petition Page 27, Table 5

Provide a similar Table that incorporates all of the following assumptions:

- Gas Price growth rates that are 100% higher than the Base case described at Attachment F, page 8.
- Forecasted Load equal to the one labeled “Final w EV Adjustments” in Table 5, Attachment F page 5.
- A DSM Forecast that continues to annually add 87MW to the system after 2031. (Reference Attachment F, page 6)

Provide in Excel format preserving all formulas, links, and source data used to calculate the numbers. Include the annual amounts used to calculate the present values.

Response:
Please see Attachment A for the analysis that assumes the growth rates of gas prices are 200% higher than the Base Case described at Attachment F, page 8. These gas prices are also shown in Attachment A to this response.

The analysis in Attachment A does not include any changes to Load or DSM from the analyses presented in the petition. The data changes requested in the question (demand and DSM forecasts) are the base assumptions already included in the modeling.

However, after reviewing this request, it was discovered that the forecasted demand shown in Table 5 of Attachment F to the petition was incorrect. The data in the modeling was correct, it is just the table in the attachment that was in error. The corrected table is provided below.

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The DSM forecast in the modeling and shown on p. 6 of Attachment F already includes the impacts of continuing to add 87 MW of new DSM achievement annually to the system after 2031. The Table shows the cumulative impact of all DSM expected to be implemented beginning 2018. These cumulative impacts assume a 14-year life for the DSM equipment installed, based on the average lifetime of equipment of recent DSM achievements. After 2031, the impacts from equipment installed 14 years prior are removed from this cumulative impact as the equipment is retired, resulting in a leveling off of the cumulative impact, as new achievement offsets the impact of retiring equipment.

Please note Attachment A to this response is marked as "Non-Public," as it contains information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Based on its economic value, the Company maintains this information as trade secret.

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Demand (MW)					Energy (GWh)				
Year	Model Output	W/ Hist DSM, Building Code Adj	w DSM/Eff Adjustments	Final w EV Adjustments	Year	Model Output	W/ Hist DSM, Building Code Adj	w DSM/Eff Adjustments	Final w EV Adjustments
2018	10,415	9,241	9,151	9,152	2018	50,447	44,348	43,909	43,914
2019	10,424	9,313	9,131	9,136	2019	50,530	44,649	43,772	43,798
2020	10,499	9,399	9,146	9,156	2020	50,847	45,129	43,800	43,865
2021	10,559	9,497	9,173	9,191	2021	50,746	45,223	43,449	43,560
2022	10,621	9,623	9,226	9,251	2022	50,844	45,598	43,375	43,529
2023	10,684	9,719	9,251	9,285	2023	50,991	45,857	43,186	43,394
2024	10,755	9,831	9,291	9,329	2024	51,326	46,318	43,189	43,425
2025	10,820	9,927	9,316	9,354	2025	51,333	46,589	43,021	43,257
2026	10,886	10,048	9,365	9,403	2026	51,483	47,061	43,044	43,281
2027	10,954	10,204	9,450	9,487	2027	51,699	47,722	43,256	43,493
2028	11,026	10,381	9,555	9,593	2028	52,079	48,780	43,852	44,089
2029	11,091	10,494	9,597	9,635	2029	52,105	49,097	43,735	43,972
2030	11,153	10,628	9,659	9,697	2030	52,279	49,704	43,893	44,130
2031	11,221	10,743	9,703	9,740	2031	52,516	50,195	43,935	44,172
2032	11,293	10,840	9,818	9,856	2032	52,895	50,712	44,424	44,661
2033	11,619	11,183	9,967	10,005	2033	52,931	50,918	44,639	44,875
2034	11,717	11,315	10,099	10,137	2034	53,112	51,274	44,995	45,232
2035	11,813	11,426	10,210	10,248	2035	53,346	51,577	45,298	45,534
2036	11,912	11,553	10,337	10,374	2036	53,746	52,103	45,806	46,042
2037	12,006	11,660	10,444	10,482	2037	53,750	52,169	45,890	46,126
2038	12,100	11,754	10,538	10,576	2038	53,911	52,329	46,050	46,287
2039	12,197	11,852	10,636	10,674	2039	54,165	52,584	46,305	46,541
2040	12,301	11,956	10,739	10,777	2040	54,589	53,007	46,709	46,946
2041	12,396	12,051	10,835	10,873	2041	54,599	53,018	46,739	46,975
2042	12,488	12,142	10,926	10,964	2042	54,767	53,186	46,907	47,143
2043	12,581	12,235	11,019	11,057	2043	55,031	53,450	47,171	47,407
2044	12,693	12,348	11,132	11,169	2044	55,467	53,884	47,587	47,823
2045	12,765	12,420	11,203	11,241	2045	55,503	53,921	47,642	47,879
2046	12,851	12,506	11,290	11,328	2046	55,700	54,119	47,840	48,076
2047	12,947	12,602	11,386	11,424	2047	55,996	54,415	48,136	48,372
2048	13,035	12,715	11,499	11,536	2048	56,359	55,038	48,740	48,977
2049	13,124	12,804	11,588	11,626	2049	56,435	54,854	48,575	48,811
2050	13,213	12,893	11,677	11,715	2050	56,667	55,085	48,806	49,042
2051	13,302	12,982	11,766	11,804	2051	56,899	55,316	49,037	49,274
2052	13,391	13,071	11,855	11,893	2052	57,288	55,700	49,403	49,640
2053	13,480	13,160	11,944	11,982	2053	57,362	55,779	49,500	49,736
2054	13,569	13,249	12,033	12,071	2054	57,812	56,228	49,949	50,185
2055	13,658	13,339	12,122	12,160	2055	58,043	56,459	50,180	50,417
2056	13,748	13,428	12,212	12,249	2056	58,436	56,847	50,549	50,786
2057	13,837	13,517	12,301	12,339	2057	58,507	56,922	50,643	50,880

Preparer: Jon Landrum/ Jeremy Petersen
Title: Manager, Resource Planning Analytics / Principal Consultant, DSM & Renewable Technologies
Department: Resource Planning / DSM Strategy & Financial Ops
Telephone: 303.571.2765 / 612.330.7934
Date: January 25, 2019

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Xcel Energy		Information Request No. 7
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Company response to DOC Information Request 3.

- Provide actual YTD outside counsel fees billed as of 1/11/2019.
- Provide updated estimate for outside counsel fees after 1/11/2019.
- Provide the amount of filings fees paid for the Hart-Scott-Rodino application.
- Provide updated estimate for support and fees associated with closing the transaction.
- Clarify where the $507,000 budgeted legal fees can be found in the petition. Provide an explanation for the difference between the $507,000 budget and the $450,000 from question A.
- Provide a detailed explanation on whether there will be any transition activities associated with merging MEC, LLC with Northern States Power Company (e.g. those activities to bring the MEC, LLC into the same operating system/processes as Northern States Power Company). Provide the cost associated with each of these activities.

Response:

- Outside counsel fees as of 1/11/19 were $241,730.57
- Outside counsel fees after 1/11/19 were $20,880.18
- Xcel Energy split the fee with Southern Power, so the Company's total costs associated with the Hart-Scott-Rodino filing fee was $62,500.
- $41,000 is anticipated to be needed for support and fees associated with closing the transaction.
- The $507,000 amount reflects an updated estimate from the $450,000 estimate provided in our Petition. The difference is additional outside counsel expenses

for real estate, along with state and federal regulatory activities required in advance of closing.

- Transition activities will entail conducting due diligence, preparing and making the necessary filings, and completing necessary corporate actions for the merger. Anticipated costs associated with these activities are $7,500-$10,000.

Preparer:	Carol Bouw
Title:	Director, Strategy and Performance
Department:	Legal Operations
Telephone:	612-330-5829
Date:	January 24, 2018

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Xcel Energy
Docket No.: E002/M-18-702
Response To: MN Department of Commerce — Information Request No. 3
Requestor: Nancy Campbell, Mark Johnson, Steve Rakow
Date Received: December 13, 2018

Question:
Topic: Journal Entries – Transaction Costs
Reference(s): Attachment I of Xcel's petition

(a) Please provide a detailed breakout and explanation for the $450,000 in transaction costs.

(b) Using the detailed breakout of transactions costs, please provide support to show that these types of costs are not already included in Xcel's base rates.

(c) Please explain and provide support for why these transaction costs should be allowed to be capitalized and included in rate base.

Response:

(a) The $450k transaction costs represent an estimate of the legal and regulatory filing fees associated with transaction. We estimated the $450k number based on:

- $234k in outside counsel fees billed as of 11/20/2018;
- An estimated $50k in additional outside counsel fees to complete the transaction legal work after 11/20/18;
- $125k in Hart-Scott-Rodino filing fees to be paid to the Federal Trade Commission; and
- An additional $41k for support and fees associated with closing the transaction.

(b) The budget for the 2016 test year in our rate case was developed in mid-2015 — well before we commenced discussions regarding the acquisition of the Mankato facility. We therefore did not account for the transaction or the associated legal fees when developing the 2016 test-year budget.

Moreover, that rate case test-year budget included a total of $3,985,759.86 in legal fees and, of that total, only $5,000 was budgeted for outside legal services for the acquisition of assets, of which this transaction would fall into.

Attachment A breaks down the test-year budget of $3,985,759.86 into separate categories of legal services that comprise the total and shows the $5,000 budget in the category titled "Purchase Power Other." Given the timing and components of our test-year budget, we believe it is reasonable to conclude that $507,000 budgeted for the legal fees associated with the Mankato acquisition are incremental to the legal fees already built into the Company's base rates.

(c) The legal services provided in this matter pertain to the exploration, negotiation, and additional considerations related to the acquisition of this asset. It is therefore appropriate to capitalize these costs as part of the overall asset acquisition.

Preparer:	Benj Halama
Title:	Interim Director
Department:	Revenue Requirements North
Telephone:	612-330-5703
Date:	January 3, 2019

Northern States Power Company

NSPM O&M Expenses
General Counsel Business Area
Expense Type 713100-Consulting/Prof Svcs-Legal

Detailed Expenses by FERC Cateogry

506-Misc Steam Pwr Exp	$	80,000
524-Nuclear Power Misc Exp	$	321,000
539-Hydro Oper Misc Gen Exp	$	5,000
549-Oth Oper Misc Gen Exp	$	175,000
557-Purchased Power Other (1)	$	5,000
566-Trans Oper Misc Exp	$	37,000
923-A&G Outside Services	$	3,362,760
Total	**$**	**3,985,760**

(1) Legal expenses related to purchase power agreemens (similar to Benson work) would be booked in the FERC 557.

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Xcel Energy

Docket No.:	E002/M-18-702	
Response To:	MN Department of Commerce	Information Request No. 4
Requestor:	Nancy Campbell, Mark Johnson, Steve Rakow	
Date Received:	December 13, 2018	

Question:

Topic: Journal Entries – Acquisition Adjustment
Reference(s): Attachment I of Xcel's petition

(a) Please provide the amortization period for the $96.194 million acquisition adjustment and show where this is reflected in Attachment G – Revenue Requirements, of Xcel's petition.

(b) Please provide support for why ratepayers should pay for this $96.194 million acquisition adjustment, including identifying offsetting benefits for ratepayers.

(c) Please provide citations to cases where acquisition adjustment recovery was allowed for plants already devoted to public service.

Response:

(a) As referenced in Xcel Energy's petition (page 45), the acquisition adjustment is requested to be included in rate base with a full return over the same useful life as the plant investment. Within Attachment G – Revenue Requirements, the entire acquisition cost, including the acquisition adjustment, is reflected in the purchase price of MEC I and MEC II and is amortized over the estimated useful life of the plant, which is 2046 and 2054 for MEC I and MEC II, respectively.

~~(b)~~ The purchase price adjustment represents an estimate of the purchase price in excess of the net book value of the acquired assets. The net book value reflects the asset carrying value per Southern Power's accounting records and is not representative of the fair market value of the plant. As our analysis shows, Xcel Energy's customers will realize savings from the acquisition at the purchase price, including the acquisition adjustment, when compared to continuing with the PPAs and securing replacement power post PPA.

(c) The Uniform System of Accounts of the Federal Energy Regulatory Commission requires any difference between the original plant cost and the cost to acquire to be recorded as an acquisition adjustment (*See* Title 18, Chapter I, Subchapter C, Part 101).

An example of when an acquisition adjustment was allowed occurred in December 2010, with PSCo's purchase of Blue Spruce Energy Center and Rocky Mountain Energy Center from Calpine Development Holdings, Inc. and Riverside Energy Center LLC (FERC Docket Nos. EC10-71-000; AC11-99-000).

Preparer:	Aaron Hansen
Title:	Manager
Department:	Capital Asset Accounting
Telephone:	612-330-6854
Date:	January 3, 2019

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Xcel Energy		Information Request No. 20
Docket No.:	IP6949,E002/PA-18-702	**REVISED**
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition Page 29–30.

Please produce the supporting data for Figure 1 and 2, and answer the following questions:

- Describe all (savings) that would be produced before the expiration of the existing PPAs under both scenarios.
- Produce and describe all analysis Xcel has conducted comparing the MEC resources following the PPA expiration dates to other resources that would be available at that time.

Response:
The 375 MW of generation under the MEC I PPA expires July 31, 2026, and the additional 345 MW of net generating capability under the MEC II PPA in 2039. The tables provided in Attachment A to this response contain a detailed breakdown of savings annually through 2040, which show the savings produced both before and after the expiration of the existing PPA's.

Prior to expiration of the PPAs, there are significant fixed cost savings that are derived from avoided demand charges under the existing PPAs, as well as avoided expansion plan costs of procuring replacement capacity after the existing PPAs expire. Additionally, O&M and start costs are reduced due to the structure of the PPAs compared to Company ownership.

Xcel conducted a portfolio optimization using Strategist that included multiple different generic thermal resources as alternatives to replace the capacity of the PPAs

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upon expiration. The generic thermal assumptions used for the analysis are located in Table 13 of Attachment F of the petition.

Revised:
In our initial submittal the attachment was not included. We had this response marked as public, but with the inclusion of Attachment A it is not public. We provide this revised response with the correct designation and include Attachment A.

Attachment A provided with the Not Public version of this response contain data classified as trade secret pursuant to Minn. Stat. §13.37 and are marked as "Not Public" in their entirety. Pursuant to Minn. R. 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material**: Annual cost impact outputs of Strategist modeling.
2. **Authors:** The model was prepared by the Resource Planning Analytics group with inputs provided by multiple areas across the Company.
3. **Importance:** The model contains competitively sensitive data related to PPAs and project costs.
4. **Date the Information was Prepared**: The model was prepared during the fourth quarter of 2018.

Preparer:	Jon Landrum	
Title:	Manager, Resource Planning Analytics	
Department:	Resource Planning	
Telephone:	303.571.2765	
Date:	January 24, 2019	**REVISED**: January 28, 2019

Docket No. IP6949, E002/PA-18-702
OAG IR No. 20
Attachment A

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Attachment A provided with the Not Public version of this response contain data classified as trade secret pursuant to Minn. Stat. §13.37 and are marked as "Not Public" in their entirety. Pursuant to Minn. R. 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material**: Annual cost impact outputs of Strategist modeling.
2. **Authors:** The model was prepared by the Resource Planning Analytics group with inputs provided by multiple areas across the Company.
3. **Importance:** The model contains competitively sensitive data related to PPAs and project costs.
4. **Date the Information was Prepared**: The model was prepared during the fourth quarter of 2018.

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Xcel Energy		Information Request No. 19
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition Page 25.

What is the basis for the assumption that "ongoing costs at MEC" will escalate at "approximately 2 percent" per year? Compare this assumption to historic cost escalations at MEC, and at Xcel's other carbon-burning generation resources.

Response:
As noted in Attachment F, Page1:

> The inflation rates are used for existing resources, generic resources, and other costs related to general inflationary trends in the modeling and are developed using long-term forecasts from Global Insight. The General inflation rate is from the "Chained Price Index for Total Personal Consumption Expenditures" published in the second quarter of 2018.
>
> General inflation – The inflation rate used for construction (capital) costs and any other escalation factor related to general inflationary trends is 2.0%.

In other words, the escalation assumption in our modeling reflects a generic assumption for inflation and is not based on historical costs at MEC or the Company's other carbon-burning generation resources.

The Company does not have access to the historic O&M cost escalations at MEC. Over the past few years, we have seen flat to declining O&M costs across the Company's thermal fleet overall. However, there is variation from year to year and among individual units.

Preparer:	Jon Landrum
Title:	Manager, Resource Planning Analytics
Department:	Resource Planning
Telephone:	303.571.2765
Date:	January 24, 2019

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Xcel Energy		Information Request No. 15
Docket No.:	IP6949,E002/PA-18-702	
Response To:	Office of Attorney General	
Requestor:	Ryan P. Barlow	
Date Received:	January 11, 2019	

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Initial Petition pages 19-20.

Provide all internal reports regarding the operational due diligence the Company conducted.

Provide a summary of all known or potential risks associated with the transaction that the Company identified.

Response:
Please see Attachments A through I.

The following is a list of known and potential operational risks identified in the diligence reports attached to this response:

- Water Supply - The raw water supply demands appear to be sufficient to support peak hourly demand, but the limiting factor resides in the water filtration system during extended fired runs. The current water supply agreement in place with the City of Mankato does not provide for a minimum daily water supply obligation. Southern Power is in the process of negotiating certain amendments to the water supply agreement that will provide certainty regarding the long term supply of adequate water to the facility as well as improvements to the water filtration system.
- Steam Turbine - There have been two last stage blade (L-0 blade) failures of the Toshiba steam turbine in the Toshiba fleet. Southern Power has procured a set of replacement L-0 blades for inventory in the event of a failure in operation or replacement upon inspection due to the long lead time necessary to fabricate a

replacement blade. Those replacement blades are included in the transaction. This situation represents a low to moderation risk that is mitigated with immediate availability of replacement blades provided that the recommended blade inspections are followed; the L-0 blades are replaced if indicated and low load operation is minimized to the extent practicable.

- Gas Turbine Reliability - The cost model has been prepared by assuming the CTs will be reliable through the Siemens LTPA term. There is some risk of decreasing reliability /increasing cost as the units age which is partially mitigated by the LTPA agreement.
- Cold Weather Operation - The facility design will require more maintenance and operations labor and risk than the existing NSP combined cycle facilities. It will be similar to the PSCo Rocky Mountain Energy Center.
  - No enclosed staircase to HRSG Drum level: Significant safety risk in winter operation.
  - No hoists or overhead cranes over equipment. Increased cost for mobile crane use rent or own for maintenance and repair activities.
  - No elevator installed. Potential safety risk with extensive stair usage and increased maintenance time and cost.
  - Anhydrous ammonia is used in the SCR system. This is not used on any other Xcel sites in NSP. It poses a safety risk for operation and maintenance. New operating and maintenance policies and procedures will need to be developed.
- There will be significant effort to integrate the existing drawing data and equipment database base into NSP standard.
- Liquid fuel capabilities were not reliably demonstrated by the previous owner (Calpine), and Southern claims to have addressed the problems but has not yet demonstrated liquid fuel capabilities.
- Pipeline alignment sheets for the natural gas and reclaimed water pipelines were not available. This is a minor risk mitigated by the generally recent period of construction of those facilities.
- Minor risk associated with a future assertion that the Property Tax exemption applicable to MEC does not apply to NSPM in the event it is determined construction of the expansion facility is not completed prior to NSMP assuming ownership.

Please note portions of this response and the attachments are marked as "Non-Public," as they contain information we consider to be trade secret data as defined by Minn. Stat. §13.37(1)(b). The information derives an independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Based on its economic value, the Company maintains this information as trade secret.

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The Attachments to this response are marked as "Not-Public" in their entirety. Pursuant to Minn. Rule 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** Diligence reports from multiple internal sources within NSPM.
2. **Authors:** NSPM (multiple individuals).
3. **Importance:** This information reveals objective and subjective information generated by NSPM related to the business operations of Mankato Energy Center and its assets. In the event the transaction with NSPM does not close, Southern Power may wish to sell the plant to a third party, in which case this information could be used by a third party to influence the economic value of the facility. Additionally, disclosure of factual information related to the plant could be utilized by competitors of Southern Power to structure bids that compete with Southern Power in response to future competitive power supply solicitations. Finally, disclosure of this information to Southern Power could damage NSPM's negotiation position in the event a relevant dispute or disagreement occurs under either the PPA's or our purchase and sale agreement.
4. **Date the Information was Prepared:** Q4 2018.

Preparer:	Jerry Dittmann
Title:	Corporate Development Manager
Department:	Corporate Development
Telephone:	651-323-8275
Date:	January 24, 2019

Docket No. IP6949, E002/PA-18-702
OAG IR No. 15
Attachments A-I

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The Attachments to this response are marked as "Not-Public" in their entirety. Pursuant to Minn. Rule 7829.0500, subp. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** Diligence reports from multiple internal sources within NSPM.
2. **Authors:** NSPM (multiple individuals).
3. **Importance:** This information reveals objective and subjective information generated by NSPM related to the business operations of Mankato Energy Center and its assets. In the event the transaction with NSPM does not close, Southern Power may wish to sell the plant to a third party, in which case this information could be used by a third party to influence the economic value of the facility. Additionally, disclosure of factual information related to the plant could be utilized by competitors of Southern Power to structure bids that compete with Southern Power in response to future competitive power supply solicitations. Finally, disclosure of this information to Southern Power could damage NSPM's negotiation position in the event a relevant dispute or disagreement occurs under either the PPA's or our purchase and sale agreement.
4. **Date the Information was Prepared:** Q4 2018.

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EXHIBIT 22
TRADE SECRET IN ITS ENTIRETY

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Xcel Energy

Docket No.:	E002/M-18-702	
Response To:	MN Department of Commerce	Information Request No. 8
Requestor:	Nancy Campbell, Mark Johnson, Steve Rakow	
Date Received:	December 13, 2018	

Question:

Topic: Revenue Requirements Assumptions
Reference(s): Attachment G, Revenue Requirements of Xcel's petition

(a) Under the Revenue Requirements tab, on line 13 "O&M Expense" please explain why O&M expense is significantly higher in the years 2028 and 2038.

(b) Under the Depreciation tab, on lines 12 to 38, what is the basis for these plant additions for MEC I?

(c) Under the Depreciation tab, on lines 62 to 96, what is the basis for these plant additions for MEC II?

(d) Under the Inputs and Assumptions tab, please explain why the two lives of the gas plant are different.

(e) Please explain why Reactive Power is a benefit under Xcel ownership and revenue requirement method, compared to Southern Power ownership and PPA method.

(f) Since heat recovery mechanism is connected in MEC I, will the rating or output be limited after MEC I is retired? If yes, please explain if this is factored into Xcel's revenue requirements assumptions.

Response:

(a) The Company's Energy Supply team underwent a robust process to forecast Mankato Energy Center (MEC) ongoing expenditures (O&M and capital). Details supporting those expenditures can be found in the Excel based revenue requirements model in the tab labelled, "ES O&M|Capex". The increase in O&M expense in the years 2028 and 2038 is primarily related to turbine and generator inspections which are scheduled to occur every 10 years and do not involve replacement of major parts.

(b) Ongoing capital expenditures for MEC I are largely associated with combustion inspections, hot gas path inspections and generator rewinds that involve replacement of major parts. Details supporting the amounts and timing of such expenditures can be found in the Excel based revenue requirements model in the tab labelled, "ES O&M|Capex".

(c) Ongoing capital expenditures for MEC II are largely associated with combustion inspections, hot gas path inspections and generator rewinds that involve replacement of major parts. Details supporting the amounts and timing of such expenditures can be found in the Excel based revenue requirements model in the tab labelled, "ES O&M|Capex".

(d) Each combustion turbine is capable of a 40 year life. However, in the case of MEC I and MEC II, consideration was given to the life of the single steam turbine shared by each combustion turbine. Our analysis showed that the costs to extend the steam turbine life an additional 5 years to align with a 40 year expected life of the MEC II combustion turbine outweighed the benefits to our customers.

(e) Upon NSP's ownership of Mankato Energy Center (MEC), the Company expects that it will assume Southern Power's existing MEC reactive power rate in the MISO Tariff for providing reactive power services. As such, NSP customers will benefit from the portion of reactive power payments collected from non-NSP transmission customers. We have reflected the non-NSP payments as a reduction to revenue requirements.

(f) The revenue requirements calculation was designed to treat each unit individually given their different expected lives, maintenance schedule and related expenditures. Revenue requirements associated with the existing MEC I unit cease in 2046 when that units combustion turbine is retired and the facility reverts to a1x1 configuration until MEC II's retirement in 2054.

Preparer:	Stan Dufault
Title:	Manager, Asset Development
Department:	Corporate Development
Telephone:	612-215-4577
Date:	January 3, 2019

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Xcel Energy		Information Request No.	13
Docket No.:	IP6949,E002/PA-18-702		
Response To:	Office of Attorney General		
Requestor:	Ryan P. Barlow		
Date Received:	January 11, 2019		

Question:

For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Company response to DOC Information Request 8.

The Company explained that in years 2028 and 2038, the revenue requirement would be significantly higher due to turbine and generator inspections and not replacement of major parts. Please provide the following information:

- Explain what inspection issues could arise from the inspection, and the cost for those issues.
- Explain what the cost would be for replacements of major parts for the plant if it was required.
  o Specifically address the timing of out-of-pocket expenditures, cost recovery, and warranty claims.
- Confirm whether any costs associated with inspection issues or major parts replacement has been included in the Strategist model. If not, explain why not.

Response:

- Year 2028 and 2038 O&M includes costs for a Unit 3 Steam Turbine Inspection ($3.9M O&M) and a Unit 3 ST Gen Inspection ($1M O&M) in addition to typical annual costs. These inspections are similar to work performed by Southern Companies in 2017-2018, and typically repeated every 8-12 years depending on the specifics of the equipment. This work was last performed at MEC in 2017-2018. The work is considered O&M because the standard scope of the inspection does not include replacement of capitalized parts or equipment, but rather repairs to the existing parts. Potential major discovery items could be generator winding condition and turbine blading or rotor repairs. Year 2038 includes the same inspections and also a Steam

Turbine valve inspection (more frequent and it coincides with the steam turbine inspection in 2038). The risks are similar, and again, the most significant discovery items would be capital expenditures.

- The most significant discovery item costs would typically be capital investments in the Unit 3 generator winding ($4.5M) or in steam turbine low pressure blading ($4.9M). These items are expected to be required at some point in the life of the plant and are currently in the Capital spending forecast in 2033 (Generator) and 2021, 2036, and 2051 (L-0 blading). There is no warranty or contractual coverage for these items at this time, and such coverage is not common in the industry.
- All major parts replacement costs associated with typical inspections and major parts replacement schedules have been included in the Strategist model. We have not included contingency funding in the model for issues within the Combustion Turbines as the most common issues are covered under the Lon Term Parts agreement with Siemens. We have included steam turbine L-0 blading and generator winding contingencies, as there is a high probability that they will be required. We have not included large contingency funding in the model for issues requiring additional major parts replacement for the steam turbine, as there are not additional known issues that would indicate that need.

Preparer:	Nick Gamble
Title:	Principal Engineer
Department:	Technical Resources & Compliance
Telephone:	612-630-4046
Date:	January 24, 2019