PUBLIC VERSION

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Dan Lipschultz	Vice Chair
Matt Schuerger	Commissioner
Katie Sieben	Commissioner
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In the Matter of Xcel's Petition for Approval of a Renewable*Connect Program

DOCKET NO. E002 / M-19-33

COMMENTS OF THE OFFICE OF THE ATTORNEY GENERAL

The Office of the Attorney General—Residential Utilities and Antitrust Division ("OAG") submits these Comments in response to Northern States Power's ("Xcel" or "the Company") Petition for Approval of a Renewable*Connect Program ("Petition"). There are significant flaws in Xcel's Renewable*Connect ("RC") program that must be addressed before it can be approved.

I. BACKGROUND.

Xcel's Petition seeks to expand on its existing RC and RC Government Pilot programs that the Commission approved in February of 2017.[1] In its RC Pilot programs, Xcel dedicated approximately 78 MW of combined wind and solar resources for subscribing customers.[2] Xcel states that its RC Pilot is currently "sold out" and that the company has a waiting list of more than 400 customers.[3] At its current size, subscribers to the RC Pilot collectively purchase approximately 172 GWh of energy per year.[4]

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[1] *See In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy, for Approval of Renewable*Connect Pilot Programs*, Docket No. 15-985, ORDER APPROVING PILOT PROGRAMS AND REQUIRING FILINGS (Feb. 27, 2017).
[2] *See id.* at 4.
[3] Petition at 1.
[4] Petition at 11.

Xcel now requests approval to change and expand its RC program, and to convert its existing Windsource program into RC. As part of its proposal, Xcel would construct an additional 230 MW of combined wind and solar resources that would be dedicated to RC.[5] Xcel has already executed Memoranda of Understanding ("MOUs") with ten customers that would subscribe to the expanded RC Program for combined sales of approximately 550 GWh per year.[6]

This Section will describe: the basic concepts of Xcel's proposal, the pricing for the program, and the neutrality adjustment.

A. BASIC PROGRAM PARAMETERS.

The central idea of the RC program is that subscribers could purchase all of their energy needs from renewable resources on Xcel's system. RC Subscribers would pay a special line item to cover the costs of the renewable resources.[7] Xcel would retire renewable energy credits ("RECs") on behalf of the subscribers.[8] These RECs would therefore not be available for the company to comply with state mandates.[9] Subscribers would no longer pay costs collected through the fuel clause adjustment ("FCA").[10] Through these mechanisms, customers could choose to pay for the direct costs of renewable energy sources, rather than for the fuel of Xcel's existing resource mix.

Xcel would offer several different types of RC subscriptions.[11] First, Xcel would offer unlimited RC subscriptions on a month-to-month basis for customers.[12] The energy for the month-to-month subscriptions would be provided by the existing Windsource PPAs, the renewed

[5] *Id.* at 5.
[6] Petition at 2.
[7] Petition at 17.
[8] *Id*.
[9] *Id.* at 17-18.
[10] *See e.g.* First Revised Proposed Tariff, Section No 5, Sheet No 149.
[11] The existing RC Pilot program would continue under its already-approved terms, and would not change at all.
[12] Petition at 3.

Moraine II PPA, and new solar PPAs that have not yet been acquired.[13] All Windsource customers would be transferred into the RC month-to-month program.[14]

Xcel would also offer limited-time long-term subscriptions in 5, 10, 15, and 20 year terms.[15] Xcel would procure new wind and solar resources to provide the energy for the subscriptions, and enrollment would be open until the energy had been fully subscribed.[16] Xcel intends to hold an initial enrollment period for a "pre-determined number of days."[17] Customers who enroll during this period will receive their full subscription request if enough energy is available.[18] Otherwise, subscription sizes may be reduced by Xcel.[19] In this process, Xcel will prioritize subscription requests based on the following categories: [20]

1. Current participants in the Renewable*Connect pilot with 10-year contracts enrolling additional load under the Long Term Offer.

2. Customers with a signed MOU (or equivalent letter of intent for an entity not able to enter into an MOU) tendered to the Company on or before January 31, 2019.

3. Customers on the wait list for 5- or 10-year Renewable*Connect subscriptions.

4. Customers within this group will be further prioritized by the date that they were placed on the wait list.

5. All other customers. Customers within this group will be further prioritized by the date that they tendered the signed Service Agreement to the Company.

[13] Petition at 10.
[14] Petition at 5.
[15] Petition at 10.
[16] *Id.*
[17] Petition at 26.
[18] *Id.*
[19] *Id.*
[20] *Id.*

Within the long-term offer, Xcel would have two types of subscriptions with different pricing; a standard rate, and a lower priced "high off-peak usage" rate for large customers whose usage occurs largely during times of lower system demand.[21]

B. RENEWABLE*CONNECT PRICING.

The subscription prices for the RC program would be based primarily on the cost of the renewable resources used to provide energy. The company would then add the cost of administering the program, add a "neutrality adjustment", and subtract a capacity credit.[22] As a result, the ultimate cost of subscribing to the program will depend on the cost of these components in future years.

The most significant cost difference between the subscription options comes from the resource costs. As noted above, the energy for month-to-month subscriptions would be provided by Xcel's current Windsource resources and some new facilities, while new generation would be constructed for its long-term subscriptions. Xcel projects the following resource costs for its different subscription options[23]:

2021 Blended Resource Cost (¢ / kWh)

Subscription	Resource Cost	Capacity Credit	Total Cost
Month to Month	3.403	0.538	2.865
Standard Long Term	2.175	0.000	2.175
High Off-Peak Long-Term	1.952	0.000	1.952

The other components of the RC price would also vary based on the subscription term. Xcel's proposal would charge higher administrative costs for shorter term options.[24] Likewise,

[21] *See* Petition at 24.
[22] *See* Petition, Attachment F.
[23] Petition, Attachment F, Attachment F-1, Attachment F-2. The Capacity Credit starts out at $0.000 for long-term subscribers, but increases over time. Xcel estimates that it would be 0.279 ¢ in 2030, and 0.644 ¢ in 2040. Petition, Attachment H-2.
[24] Petition, Attachment F, Attachment F-1, Attachment F-2.

the amount of Xcel's neutrality adjustment differs depending on the specific subscription term.[25] The neutrality adjustment is discussed in more detail below.

In its Petition, Xcel estimates the following prices for the first year of the program[26]:

Subscription	2021 - ¢ / kWh
Month to Month	3.524
5-Year Standard	3.010
20-Year Standard	2.970
5-Year High Off-Peak	2.760
20-Year High Off-Peak	2.720

C. NEUTRALITY ADJUSTMENT.

One important part of the RC program's pricing is the neutrality adjustment. Xcel states that the purpose of the neutrality adjustment is to "prevent non-participants from experiencing a disproportionate increase in costs as a result of the program."[27] Essentially, the neutrality adjustments is a pre-determined amount that Xcel will add to the resource cost of the RC program.[28] The revenues attributed to the neutrality adjustment will be credited to the FCA. Xcel states that this mechanism will "minimiz[e] impact to non-participating customers from program-related costs."[29]

Xcel's proposed neutrality adjustment includes six cost components: line losses, curtailment, balancing, wind integration, coal cycling, and congestion.[30] In response to OAG Information Request 12, Xcel provided the following comparison of how the neutrality adjustment would change compared to the RC Pilot:[31]

[25] *Id.*
[26] Petition, Attachment F, Attachment F-1, Attachment F-2.
[27] Petition at 17.
[28] Petition at 23.
[29] *Id.*
[30] *See* Petition at Attachment I, Attachment I-1, Attachment I-2.
[31] OAG Information Request 12, Exhibit 1.

Neutrality Component	First R*C Filing (First Year) (E002/M-15-985)	Current R*C Filing (2021-40) (E002/M-19-33)
Line Losses	7.1% of PPA Cost	7.08% of PPA Cost
Curtailment (Cents/kWh)	0.000 to 0.200	0.064 to 0.092
Monthly Balancing	0.000 to 0.100	0.029 to 0.062
Economic Impact	0.000 to 0.500	0.000 to 0.000
Wind Integration		0.046 to 0.065
Coal Cycling		0.139 to 0.202
Congestion		0.277 to 0.403 (For New Resources Only)
Total	0.4747 (First Year)	0.693 to 1.047

As this table shows, the key differences between the currently proposed neutrality adjustment and the neutrality adjustment in Xcel's existing pilots are that the "Economic Impact" category would be removed, and the "Wind Integration," "Coal Cycling," and "Congestion" would be added. The other components of the neutrality adjustment would all be valued differently from the RC Pilot.

Xcel's filing includes separate neutrality adjustments for its month-to-month RC customers, its standard long-term subscribers, and its "high-off peak" long-term subscribers.[32] The neutrality adjustment for long-term subscribers would adjust during each year of the subscription based on a schedule set forth in the Petition.[33] In other words, Xcel requests that the Commission approve specific neutrality adjustments for the duration of its long-term contracts.

II. XCEL'S PROPOSAL FOR THE RENEWABLE*CONNECT PROGRAM IS NOT REASONABLE.

While it may be reasonable to give customers the option of choosing to purchase their energy from renewable resources, Xcel's specific proposal here has many significant flaws. First, the RC program would sidestep traditional resource planning and allow the Company to select and construct resources to provide different options for its customers, regardless of

[32] Petition, Attachment I, I-1, I-2.
[33] *Id.*

whether these resources are needed on the utility system. Second, the long-term contracts proposed for the RC program are not reasonable because they place unnecessary risks on non-participating customers. Third, the company's attempts to protect non-participating customers is insufficient, because it relies on a relatively new and flawed neutrality adjustment. Fourth, Xcel would unreasonably direct the newest, cheapest renewable resources to RC customers while non-participants would pay the higher costs of older resources. The combined result of these flaws is that Xcel could substantially overbuild its system while overloading residents and small businesses with excessive risks and higher costs.

A. THE RENEWABLE*CONNECT PROGRAM WOULD SIDE-STEP TRADITIONAL RESOURCE PLANNING.

The first problem with Xcel's proposed RC program is that it would diverge significantly from the way that the Company currently procures its resources. Under Xcel's proposal, the Company would not need to demonstrate that new resources are needed or that the resources it intends to acquire are the best way to meet a need. These are the important questions that are analyzed in utility integrated resource plans. By ignoring these issues, Xcel could significantly overbuild its system and create excessive costs. This problem is enhanced by the fact that Xcel's proposal would shift any risk of overbuilding onto its non-participating customers.

1. Xcel's Proposes To Build Resources Without Showing They Are Needed.

According to Minnesota Law and rule, Xcel is required to demonstrate that it has a need for energy and capacity resources before it can acquire them, and that its proposed solution to fill this need is the most reasonable option that is consistent with state environmental goals.[34] These decisions are typically made in integrated resource plans ("IRPs") and in certificate of need

[34] *See* Minn. Stat. §§ 216B.24, .2422, and .243; Minn. Rules chapter 7843.

filings. These processes ensure, in part, that utilities do not acquire excessive resources to increase their rate base and raise profits. Xcel's proposal for the RC program, however, would allow the company to acquire significant resources without demonstrating that there is a need, or that the resources it proposes present the best solution to a need.

Xcel's Petition seeks approval to acquire 150 MW of new wind and 80 MW of new solar resources.[35] Those resources would be procured in order to serve the RC program, rather than to serve demonstrated need for capacity or energy on Xcel's system. In fact, Xcel confirmed that it does not have a capacity or energy need; it has excess capacity resources through at least 2024, and has excess energy resources through at least 2026.[36] The resources that Xcel wants to acquire for RC are not needed to meet its existing or forecasted demand for years.

Allowing Xcel to procure resources that are not needed to meet system demands, outside of the IRP process, would be a major change from the current regulatory process. The IRP process places an important check on Xcel and other utilities that have a natural incentive to overbuild their system to increase their rate base and raise profits from captive customers. Xcel's proposals to acquire system resources are typically scrutinized by the Commission, the Department of Commerce, and other intervenors to ensure they are necessary and reasonable. Here, however, Xcel seeks to develop 230MW of wind and solar resources without this important check, and the company will likely attempt to grow this program in the future.

The OAG raised these same concerns when Xcel filed its RC Pilot proposal. In that case, however, the underlying facts were less concerning than Xcel's current request. For its RC Pilot, Xcel did not acquire *new* system resources. Instead, the company dedicated portions of already-approved system resources for its RC Pilot. In other words, the resources Xcel used for its RC

[35] Petition at 5.
[36] OAG Information Request 17, Exhibit 2.

Pilot had already been deemed necessary to meet the utility's other needs. In that case, it was not necessary to resolve the broader concerns about how the RC Pilot would interact with Xcel's resource planning process. In this case, the Commission should carefully consider how Xcel's broader RC program would impact its resource planning, and Xcel should not be permitted to acquire new resources without first demonstrating that they are needed.

2. Xcel Has Shifted All Risk To Non-Participants.

Xcel's proposal to develop significant resources without an IRP is also problematic because the Company bears no risk for the possibility that its RC program may be under-subscribed. This is important because Xcel is asking to build resources that it has not demonstrated are needed. Rather, Xcel has simply shifted this risk to non-participants—i.e. those who choose *not* to subscribe or otherwise participate in this optional program. This is unfair because Xcel is seeking to build resources without determining that they are necessary to meet its energy or capacity needs.

Xcel's proposal would fully insulate the Company from risk because any RC energy that is not purchased by subscribers would be paid for in the FCA by non-participants. Specifically, Xcel asks the Commission to approve "[t]he allocation to the system of any excess energy from existing or new Renewable*Connect Program resources and the recovery of excess energy costs through the Fuel Clause Rider."[37] In other words, if the RC program is undersubscribed, Xcel will simply "sell" the excess energy to non-participants through the FCA. This is not reasonable when Xcel has not demonstrated that the resources it intends to build for the RC program are needed for its system.

[37] Petition at 6.

B. XCEL'S PROPOSAL FOR LONG-TERM RENEWABLE*CONNECT CONTRACTS IS NOT REASONABLE.

The second problem with Xcel's proposed RC program is that the long-term contracts it wants to offer are not reasonable. First, the long-term contracts that Xcel proposes unfairly provide financial benefits to some of its largest, most sophisticated customers. Providing these financial benefits is not necessary to allow these large customers to procure renewable energy and meet their sustainability goals. Second, Xcel has unfairly prioritized a select group of large customers to receive these financial benefits while other customers may be shut out of the long-term program.

1. Long-Term Contracts Unfairly Give Sophisticated Customers The Chance To Hedge Their Fuel Costs.

The most significant problem with Xcel's proposal for long-term contracts is that it gives a subset of sophisticated customers the ability to hedge against future fuel cost increases. This is a financial benefit for a few large customers that is not necessary to allow them to "go green." The month-to-month program that Xcel proposes would give all of its customers an opportunity to purchase all of their energy needs from renewable resources and meet their individual sustainability goals. The long-term options that Xcel proposes would allow these customers to receive renewable energy *and* hedge future costs. The problem with allowing any of Xcel's customers to hedge their fuel costs for decades in this program is that it could unfairly impact the utility's other customers.

Customers who sign up for Xcel's long-term RC contracts will entirely eliminate their exposure to costs that are recovered through the FCA. This includes the commodity costs of fuels like natural gas, and other costs incurred to maintain reliability. For instance, long-term RC customers will not have to pay for replacement power costs if there are outages at Xcel's nuclear plants or other large generators. These customers, however, would continue to receive the

benefits of uninterrupted power, provided to all customers, while knowing what their fuel prices will be decades in advance. It is not reasonable to set a fixed "fuel" price for these customers for twenty years under the auspices of providing them with a green tariff.

In addition, setting long-term prices for RC subscriptions creates the possibility that the FCA charge they would not pay may rise above the RC charge in the future. If this happens, the customers on the RC program would pay less than non-participants. All of Xcel's customers would have a financial incentive to transition to RC and away from the existing system. This would unfairly impact customers who attempt to join the program after it is fully subscribed. Moreover, this transition could further concentrate the costs of the FCA on non-participants, which would in turn create an ever-stronger incentive to move to RC. This would create an unsustainable and unfair situation for customers who cannot agree to the long-term contracts that Xcel proposes.

The information already presented by Xcel suggests that it is likely that the RC charge could be lower than the FCA in the near future. According to estimates provided by Xcel, the **[TRADE SECRET BEGINS]**

[TRADE SECRET ENDS]

There is no law or rule requiring Xcel's green tariff program to include the option for some customers to receive stable fuel costs, and perhaps even discounts, in exchange for signing a long-term contract. This feature of Xcel's proposal could cause unfair outcomes and is not necessary to allow customers to purchase renewable energy.

2. Xcel Has Pre-Selected Several Customers To Receive The Benefits Of Hedging.

The second problem with Xcel's proposal for long-term contracts is that the utility appears to have given several of its largest customers an advantage when it opens applications for its subscriptions. Providing this advantage to a select group of customers magnifies the hedging concerns explained above. Essentially, Xcel is allowing a certain group of large,

[38] This information is combined from the trade secret response to OAG Information Request 7, Attachment B, attached as Exhibit 3, and Petition, Attachment F-1.
[39] Based on Xcel's estimated fuel clause costs.

sophisticated customers to receive a substantial financial benefit from its RC program *and* selecting the individual customers that will be most likely to receive these benefits.

At the time it publicly filed its Petition, Xcel stated that it had already executed MOUs with 10 of its largest customers.[40] These MOUs appear to absorb a significant portion—or perhaps all—of the new generation that Xcel would make available for its long-term RC contracts.[41] While other customers may want to receive these financial benefits and sign long-term contracts, they will be limited by the amount of energy that is not purchased by the MOU signatories. This is because Xcel proposes that the customers who have already executed MOUs be given priority when the Company's "initial enrollment period" opens. In other words, the customers who worked with Xcel before its filing was made public will be moved to the "front of the line" in the enrollment process. Other customers who attempt to subscribe to one of the long-term plans when the initial enrollment period is publicly opened may be shut out. Xcel is a public utility. It is patently unfair to limit options to customers who were not made aware of Xcel's filing ahead of time, or were not given the opportunity to work with the utility before the filing was made public.[42]

C. XCEL'S RELIANCE ON THE NEUTRALITY ADJUSTMENT TO PROTECT NON-PARTICIPANTS IS NOT REASONABLE.

The third problem with Xcel's proposed RC program is that it unreasonably relies on a neutrality adjustment that is calculated today to adequately protect non-participants until 2040.

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[40] Petition at 2.

[41] *Id.* As explained above, Xcel's current pilot dedicated 78MW of renewable resources. This pilot is currently "sold out" to customers that purchase a total of 172GWh annually. Xcel now seeks to construct 200MW of renewable resources that it will dedicate to its long-term subscribers. Petition at 5. The MOUs the company has received from 10 customers already account for 550GWh of energy annually. Petition at 2.

[42] Xcel notes that, by requiring an MOU executed by *both* the customer and Xcel, it exerts some control over which customers may receive long-term RC contracts. *See* Petition at 26 ("In the event that the subscription requests (as verified by customer signed Service Agreements) received during the initial enrollment period exceed the energy available in the program, then subscription sizes may be reduced *before the Company counter-signs* so that as many customers as possible may participate.") (Emphasis added).

This is flawed for two reasons. First, Xcel's neutrality adjustment is a new and complex ratemaking tool that is still evolving. It is therefore not reasonable to rely on these calculations to be accurate well into the distant future. Second, Xcel has made at least one change to the neutrality adjustment from its RC pilot that is not reasonable.

1. The Neutrality Adjustment Should Not Be Relied On For Decades.

The neutrality adjustment is a vital component to Xcel's proposal because it is intended to ensure that RC subscribers do not unfairly harm non-participants. As Xcel explains, the purpose of the neutrality adjustment is to "prevent non-participants from experiencing a disproportionate increase in costs as a result of the program."[43] This is important because RC subscribers would not contribute to a host of pass-through costs that are recovered in Xcel's FCA adjustment.

Xcel's proposal would establish a single neutrality adjustment calculation that would apply for every year of a long-term contract up to 20 years. The neutrality adjustment must therefore be calculated with accuracy and precision—on day one—to adequately protect non-participants from harm for the full duration of the contract. It is not reasonable to expect this level of precision in such a new concept.

The neutrality adjustment is a relatively new, extremely complex idea. Xcel first adopted it just a few years ago in the RC pilots. In this petition Xcel seeks to modify the charge. This suggests that the neutrality adjustment is still somewhat of a "work in progress." The neutrality adjustment that Xcel proposes here includes six components with ranging values for different product offerings. Since the RC Pilot was approved a few years ago, one component was deleted

[43] Petition at 17.

from the neutrality adjustment, and three were added.[44] The three components that remained from Xcel's RC Pilot also had significantly changed values. For example, the range for the curtailment factor was changed from 0.000 to 0.2000 in the RC pilot to 0.064 to 0.092 in Xcel's current proposal—reducing the range of the calculation by more than half. Put differently, *every* component of the neutrality adjustment has either been removed, replaced, or had its value changed since it was first introduced in Xcel's RC Pilot. And, notably, the neutrality adjustment does not include a component to ensure that RC customers contribute to the cost of Xcel's legacy renewables, as discussed above.

It is not reasonable to assume that the neutrality adjustment Xcel proposes in this proceeding correctly protects non-subscribers for the next 15 or 20 years when it was changed so significantly in the last few. It is very likely that circumstances will change, or that stakeholders will continue to refine the calculation. It is extremely *unlikely* that the neutrality adjustment is perfectly correct. And if it is wrong, then non-participants could be harmed by the RC program. Limiting the RC program to a month-to-month offering would allow the adjustment to be updated with new information. Long-term contracts would perpetuate any harm and inaccuracies for decades.

2. Xcel's Proposed Neutrality Adjustment Is Already Flawed.

In addition to its misplaced reliance on the neutrality adjustment for 20 years, Xcel has already made at least one unreasonable modification to the adjustment from the RC Pilot. Specifically, Xcel has proposed to remove one component from the neutrality adjustment that would protect non-participants from over-paying the costs of any stranded assets. If non-

[44] OAG Information Request 12, Exhibit 1.

participants are not adequately protected, the RC program could result in non-participants unfairly paying for the costs of assets that may become obsolete or otherwise not used.

In the RC Pilot, the neutrality adjustment included an assumption for "Economic Impacts." At the time, Xcel explained that this assumption would be used to address the possibility that some of the resources of Xcel's system may become stranded assets.[45] This was an important feature of the neutrality adjustment because RC subscribers are effectively leaving Xcel's "default" system. This system includes a host of generating assets that were built to support Xcel's projected load for decades. It is important that customers who leave that system contribute to these potential costs.

Maintaining the Economic Impacts category is also important because procuring new resources for RC customers could actually increase the potential for non-subscribers to be stuck paying for stranded resources. This is because Xcel proposes to procure new resources to supply energy to the RC program outside of the normal resource acquisition process. As it does, the older and more expensive resources on its system will presumably become less-cost effective. Moreover, Xcel will be serving fewer customers and less load on its "default" system as some, predominantly large customers are supported by RC generation. If the RC program continues to grow, some of Xcel's older resources may no longer be needed, or may not be economical to support the smaller pool of non-participants. In this way, allowing Xcel to procure new resources specifically for the RC program—without establishing that they are needed—increases the risk that its other resources may become stranded assets.

Notably, Xcel identified this risk in its RC Pilot petition several years ago, and proposed that the risk be quantified in the assumption for Economic Impacts. The neutrality adjustment

[45] Xcel Initial Comments Dkt 15-985, at 16.

approved for the RC pilot includes a cost of 0.000 to 0.500 cents per kWh for Economic Impacts. In that case, the risk of the RC pilot program producing stranded assets was even lower, because Xcel did not build new resources for subscribers. Here, it does plan to construct new resources.

Regardless, Xcel now proposes to eliminate this category from its neutrality adjustment. Xcel has not provided a meaningful explanation for why this charge should be eliminated. Rather, Xcel's only statement on the matter was that "[w]ith [the learnings from its pilots] in hand, the Company has focused the neutrality [adjustment] toward operational and integration costs and away from economic impacts of stranded assets."[46] This is not sufficient justification to remove this important factor from the neutrality adjustment calculation, and Xcel should not be permitted to do so without significantly more analysis to support its position.

D. XCEL UNREASONABLY DIRECTS THE NEWEST, CHEAPEST RESOURCES TO ITS RC PROGRAM AND LONG-TERM SUBSCRIBERS.

The fourth problem with Xcel's proposed RC program is that it would unfairly direct lower-cost renewable resources to specific customers. This is done in two ways. First, Xcel would dedicate many of its newer, cheaper resources to the RC program. This would give RC participants the benefit of these low-cost resources, while non-participants would pay for the older, more expensive resources. Second, Xcel would dedicate the newest, lowest-cost resources *within* the RC program to its long-term subscribers. This would mean that month-to-month subscribers would pay for the more expensive resources dedicated to the program. This is not a reasonable allocation of Xcel's renewable resources.

Xcel intends to dedicate new, low cost renewable resources to the RC program, while non-participating customers would pay for the Company's legacy assets. As explained above, Xcel would construct 230 MW of wind and solar resources for the RC program. These resources

[46] Petition at 23.

will supplement the existing Windsource PPAs, as well as the new Moraine II PPA and new solar PPAs. The blended cost of the resources that Xcel intends for the RC program range from 1.952 cents per kwh for the "high off-peak" contract customers, to 3.403 cents per kwh for the month-to-month customers.[47] This is significantly more costly than many of the older renewables that are on Xcel's system. In response to OAG Information Request 4, Xcel provided a list of prices for its existing renewable PPAs per MWh, and a levelized per MWh price estimate for its company-owned wind farms.[48] While the specific information is marked as Trade Secret, it is clear the estimated price of the "new" resources Xcel wants to procure for RC are lower than nearly all of its existing renewable resources. Essentially, Xcel is proposing to create special rate that uses the least expensive renewables on its system, while non-participants shoulder the burden of older and more expensive resources. This is not a reasonable allocation of the utility's renewable facilities.

Xcel also intends to direct the newest and lowest cost resources within the RC program to its long-term subscribers. This is problematic because it would provide the greatest financial benefits of RC to a handful of large customers, most of whom Xcel worked with ahead of its public filing. Specifically, Xcel plans to dedicate its "Legacy Windsource" PPA's exclusively to its month-to-month subscribers. The cost of these resources are more than twice the cost of the new wind dedicated to the month-to-month customers.[49] Moreover, the wind resources that Xcel intends to construct for the long-term subscribers is cheaper than any of the wind it would

[47] Petition at Attachment G, Attachment G-1, Attachment G-2.
[48] OAG Information Request 4, Attachment A, Exhibit 4.
[49] *See* Petition at Attachment G.

dedicate to its month-to-month customers.[50] The result is that Xcel's month-to-month RC customers will pay substantially more for renewable resources than its RC long-term customers:

2021 Blended Resource Cost (¢ / kWh)

Subscription	Resource Cost	Capacity Credit	Total Cost
Month to Month	3.403	0.538	2.865
Standard Long Term	2.175	0.000	2.175
High Off-Peak Long-Term	1.952	0.000	1.952

As the chart above shows, the blended resource cost for the month-to-month program would be approximately 50 percent greater than for the other programs, exclusive of the capacity credit.[51]

There are at least two problems with Xcel's attempt to direct its cheapest resources to its long-term subscribers. First, the utility's long-term program is likely to be used by larger, more sophisticated customers who can make complex decisions about future fuel prices. Residential and small business customers are more likely to participate in the month-to-month program. It is not reasonable to design a program that directs the lowest cost resources to the utility's largest customers, while leaving the higher cost resources to residents and small businesses. Second, directing cheaper resources to long-term subscribers provides additional financial incentives for large customers to leave Xcel's "default" system, essentially rewarding them even if they are not committed to purchasing renewable energy. This would exacerbate the problems for non-participating customers discussed above because it would encourage customers who may not otherwise participate in RC's long-term program to do so, at the expense of the remaining customers. In sum, it is not reasonable to dedicate the benefit of cheaper, newer resources to a handful of large customers that can commit to long-term contracts.

[50] *See* Petition at Attachment G, Attachment G-1, Attachment G-2.
[51] While there would be no capacity credit for the long-term resource costs at the start of the program, the capacity credits would be added beginning in 2025. This would lower the total cost to long-term subscribers even further. *See* Petition at Attachment F-1, Attachment F-2.

III. RECOMMENDATION.

The many problems with Xcel's proposal described in Section II suggest that the most reasonable course of action may be to reject it entirely. Doing so would maintain the status quo (in which Xcel continues to add renewables and move towards its own carbon-free goal[52]), protect non-participants from harm, and preserve the Commission's traditional authority over resource acquisitions. Rejecting the program would mean that the Commission found that *this proposal* for adding renewables is not in the public interest. It does not mean that the Commission finds that renewables should not be added, particularly when it considers Xcel's next IRP.

That said, some of the concepts behind the RC program are in the public interest. Individual ratepayers and businesses both small and large are becoming more interested in renewable energy and the environmental benefits it can provide. Minnesota has important climate goals, and even more ambitious and challenging goals are being considered by the Legislature.[53] Giving customers options to support those policies and express their own values is important. For those reasons, these comments lay out a series of changes that should be made to the RC program in order to mitigate its most significant problems. Without the changes described below, the OAG would recommend rejection of the program entirely.

First, the RC program should be limited to the month-to-month offering, and long-term contracts should not be permitted. Combining the option of purchasing renewable energy with long-term contracts results in an overly complicated program that presents too many risks to

[52] Notably, on March 4, 2019, Governor Walz announced a plan for Minnesota to achieve "100 Percent Clean Energy in Minnesota by 2050." *See* Press Release, Exhibit 5. This suggests that Minnesota will continue to transform its generation fleet and adopt clean resources, even if the Commission determines that Xcel's current RC proposal is not in the public interest. *See also* H.F. 1956 (proposing that 100 percent of Minnesota's electricity be produced by carbon-free resources by 2050). Exhibit 6.

[53] *See id.*

ratepayers and the regulatory system. Customers who wish to choose renewable energy can do so by participating in the month-to-month program.

Second, Xcel should not be allowed to recover unsubscribed portions of the RC resources through the FCA.

Third, the RC program should be modified so that the RC charge can never be lower than the FCA. As discussed above, permitting the RC charge to be lower than the FCA would create significant regulatory problems, and should not be allowed.

Fourth, the neutrality adjustment should be updated so that it continues to account for Economic Impacts and stranded costs, and should be updated on a regular schedule to incorporate on the most currently available information. The Commission should also direct Xcel to investigate whether the neutrality adjustment should account for system benefits provided by non-RC generation resources.

Fifth, if long-term program offers are permitted, they should be no longer than 5 year contracts. Xcel should also be required to use similar resource prices for both the month-to-month and long-term offers. It is reasonable to offer a reduced administrative cost for long-term offers, but Xcel has not demonstrated that it would be reasonable to offer a significantly lower resource cost as well. Further, if long-term contracts are permitted, the contract should provide that the neutrality adjustment may be periodically updated during the contract to ensure that non-participants are not harmed.

These changes are the minimum necessary to mitigate the potential harms of Xcel's proposal for the RC program. These recommendations are also presented in a bulleted list in Attachment 1 for convenience.

Dated: March 13, 2019

Respectfully submitted,

KEITH ELLISON
Attorney General
State of Minnesota

s/ **Ian Dobson**
IAN DOBSON
Assistant Attorney General
Atty. Reg. No. 0386644

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

ATTACHMENT 1

RECOMMENDATIONS

- The Renewable*Connect program shall be limited to month-to-month offers, without long-term contracts.

- Xcel shall not be allowed to recover the costs of unsubscribed portions of the RC resources through the FCA.

- The monthly per kWh charge for the Renewable*Connect program may never be lower than the monthly fuel clause adjustment.

- The neutrality adjustment shall be updated so that it continues to account for Economic Impacts and stranded costs.

- The neutrality adjustment shall be updated on a regular schedule based on the most currently available information.

- Xcel shall investigate whether the neutrality adjustment should account for system benefits provided by non-Renewable*Connect generation, and provide a report to the Commission within one year.

If the Commission permits long-term contract offers:

- Renewable*Connect contract terms may be no more than five years in length.

- The resource cost for Renewable*Connect offerings must be similar for month-to-month and long-term offers, and Xcel may not exclusively allocate lower-cost resources to the long-term offers.

- Long-term Renewable*Connect contracts must provide that the neutrality adjustment may be periodically updated during the contract term.

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☐ **Public Document – Not Public Data Has Been Excised**
☒ **Public Document**

Xcel Energy Information Request No. 12
Docket No.: E002/M-19-33
Response To: Office of Attorney General
Requestor: Ryan Barlow
Date Received: January 17, 2019

Question:
Reference: Attachment J

Provide more information about the proposed change in the neutrality adjustment. Specifically identify all changes, including differences between the service offerings.

Response:
The neutrality charge is proposed in Attachment I of the Company's Renewable*Connect petition. Please see the table below for a comparison of the components of the neutrality charge.

Neutrality Component	**First R*C Filing (First Year) (E002/M-15-985)**	**Current R*C Filing (2021-40) (E002/M-19-33)**
Line Losses	7.1% of PPA Cost	7.08% of PPA Cost
Curtailment (Cents/kWh)	0.000 to 0.200	0.064 to 0.092
Monthly Balancing	0.000 to 0.100	0.029 to 0.062
Economic Impact	0.000 to 0.500	0.000 to 0.000
Wind Integration		0.046 to 0.065
Coal Cycling		0.139 to 0.202
Congestion		0.277 to 0.403 (For New Resources Only)
Total	0.4747 (First Year)	0.693 to 1.047

Preparer: Nick Paluck
Title: Rate Consultant
Department: Regulatory Analysis
Telephone: 612-330-2905
Date: January 31, 2019

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☐ **Public Document – Not Public Data Has Been Excised**
☒ **Public Document**

Xcel Energy Information Request No. 17
Docket No.: E002/M-19-33
Response To: Office of Attorney General
Requestor: Ryan Barlow
Date Received: January 17, 2019

Question:
Please provide Xcel's demand forecasts for the next 20 years, compared to Xcel's existing, scheduled, and approved generation resources during the same period. For each year, identify the percentage of excess capacity or energy estimated.

In providing your answer, explain what Xcel does with excess capacity and energy.

Response:
The tables below provide the forecast of capacity and energy need for 20 years forward, in addition to the forecast of capacity credit and energy production of resources currently existing or approved. The calculated percent of forecast need met by these resources is also provided. The information is consistent with forecast of need and resources in the Company's petition for the Acquisition of 302.4 MW Dakota Range Wind Project (Docket No. E002/M-17-694).

	Capacity (Total System, MW)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
A	Peak Demand Forecast	9,309	9,358	9,444	9,314	9,392	9,466	9,553	9,672	9,754	9,781
B	Planning Reserve Margin	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%
C	NSP Coincident Factor	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
D	Obligation (D=(A*(1+B)*C))	9,533	9,584	9,672	9,538	9,619	9,694	9,783	9,905	9,989	10,017
	Existing/Approved Resources	10,665	10,952	10,964	11,129	10,085	8,948	8,416	7,425	7,099	7,080
	% of Forecast Obligated Capacity Served by Existing and Approved Resources	100%	100%	100%	100%	100%	92%	86%	75%	71%	71%

	Capacity (Total System, MW)	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
A	Peak Demand Forecast	9,853	10,008	10,146	10,312	10,435	10,534	10,640	10,732	10,828	10,911
B	Planning Reserve Margin	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%	7 80%
C	NSP Coincident Factor	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
D	Obligation (D=(A*(1+B)*C))	10,091	10,249	10,390	10,561	10,687	10,787	10,897	10,991	11,089	11,174
	Existing/Approved Resources	7,078	6,277	6,026	5,988	5,451	4,487	4,424	4,361	3,843	3,567
	% of Forecast Obligated Capacity Served by Existing and Approved Resources	70%	61%	58%	57%	51%	42%	41%	40%	35%	32%

Energy (Total System)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Energy Need Forecast (GWh)	44,705	44,688	44,726	44,747	44,813	44,976	45,032	45,304	45,662	45,639
Energy From Existing/Approved (GWh)	48,544	50,707	50,881	50,075	47,459	46,255	46,169	40,622	40,446	39,051
% of Forecast Energy Need Served by Existing and Approved Resources	100%	100%	100%	100%	100%	100%	100%	90%	89%	86%

Energy (Total System)	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Energy Need Forecast (GWh)	45,666	46,090	46,493	46,905	47,130	47,429	47,846	48,106	48,244	48,512
Energy From Existing/Approved (GWh)	37,838	33,667	32,864	29,968	26,513	21,880	20,054	20,172	17,074	17,036
% of Forecast Energy Need Served by Existing and Approved Resources	83%	73%	71%	64%	56%	46%	42%	42%	35%	35%

The Company either sells bilaterally to other counterparties any excess capacity and energy or offers it into the annual MISO Planning Resource Auction.

Preparer:	Keith Howe	Tom McDonough
Title:	Resource Planning Analyst	Manager, Transmission Access
Department:	Resource Planning	Market Operations
Telephone:	612-330-6252	612-337-2258
Date:	January 31, 2019	

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Docket No. E002/M-19-0033
OAG Information Request No. 7
Attachment B, Page 1 of 1

NSP Five-Year Fuel Cost Projection

($/MWh)

Month	2019	2020	2021	2022	2023
[NOT PUBLIC DATA BEGINS					
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Annual					
NOT PUBLIC DATA ENDS]					

Source:

Company 2018 AAA Report (Docket No. E999/AA-18-373), Production Cost Summary ($/MWh), Part G, Section 1, Schedule 1.

PUBLIC VERSION

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Renewable PPA Energy $/MWh as of June 2018		
PPA Counterparty Name	**Project Name**	**PPA Prices as of June 2018**
		Energy $/MWh
		[PROTECTED DATA BEGINS
Adams Wind Generations	Adams Wind Generations	
Agassiz Beach, LLC	Agassiz Beach, LLC	
Aurora Distributed Solar, LLC	Aurora Distributed Solar, LLC	
* Benson Power, LLC (aka Fibrominn)	Benson Power, LLC (aka Fibrominn)	
Best Power International LLC (RDF)		
	St. Johns	
	Sr. Notre Dame	
Big Blue Wind Farm, LLC	Big Blue Wind Farm, LLC	
Boeve Windfarm, LLC	Boeve Windfarm, LLC	
Byllesby	Byllesby	
Carleton College	Carleton College	
Chanarambie Power Partners, L.L.C.	Chanarambie Power Partners, L.L.C.	
Cisco Wind Energy, LLC	Cisco Wind Energy, LLC	
Covanta Hennepin Energy Resource Co LP	Covanta Hennepin Energy Resource Co LP	
Dairyland Electric Cooperative Incorporated	Dairyland Electric Cooperative Incorporated	
Danielson Wind Farms, LLC	Danielson Wind Farms, LLC	
Diamond K Dairy Inc.	Diamond K Dairy Inc.	
East Ridge group		
	Bendwind, LLC	
	DeGreeff DP, LLC	
	DeGreeffpa, LLC	
	Groen Wind, LLC	
	Hillcrest Wind, LLC	
	Larswind, LLC	
	Sierra Wind, LLC	
	TAIR Windfarm LLC	
Ewington Energy Systems, LLC	Ewington Energy Systems, LLC	
Fenton Power Partners I, L.L.C.	Fenton Power Partners I, L.L.C.	
Fey Windfarm, L.L.C.	Fey Windfarm, L.L.C.	
FPL Energy Mower County, L.L.C.	FPL Energy Mower County, L.L.C.	
Garwin McNeilus		
	Asian CS, LLC.	
	Ashland	
	Bangladesh CS, LLC	
	Brandon Windfarm, LLC	
	BT, LLC	
	Burmese CS, LLC	
	Elsinore Windfarm, LLC	
	GarMar Wind I	
	GM, LLC	
	Grant	
	Henslin Creek Windfarm, LLC	
	Indian CS, LLC	
	McNeilus Windfarm, LLC	
	REAP I, LLC	
	REAP II	

	Salvadoran CS, LLC	
	SG, LLC	
	Triton Windfarm, LLC	
	Wasioja Wind, LLC	
	Wilhelm Windfarm, LLC	
	Zumbro	
Grant County Windfarm, LLC	Grant County Windfarm, LLC	
City of Hastings Hydro	City of Hastings Hydro	
Hilltop Power, L.L.C.	Hilltop Power, L.L.C.	
Jeffers Wind 20 LLC	Jeffers Wind Energy Center	
JJN Windfarm, LLC	JJN Windfarm, LLC	
Kas Brothers Windfarm, L.L.C.	Kas Brothers Windfarm, L.L.C.	
Kas Brothers Windfarm, L.L.C.	Kas Brothers Windfarm, L.L.C.	
K-Brink Windfarm, L.L.C.	K-Brink Windfarm, L.L.C.	
Labs Westgate		
	CG Windfarm, LLC	
	TG Windfarm, LLC	
	Tofteland Windfarm, LLC	
Lake Benton Power Partners, L.L.C.	Lake Benton Power Partners, L.L.C.	
* Laurentian Energy Authority, L.L.C.	Laurentian Energy Authority, L.L.C.	
Lac Courte Orielles Band of Lake Superior Chippewa Indians	LCO Hydro	
Lincoln Heights Wind Holdings (aka Norgaard)	Lincoln Heights	
Manitoba Hydro	Manitoba Hydro	
Marshall Solar	Marshall Solar, LLC	
Metro Wind LLC	Metro Wind LLC	
MinnDakota Wind LLC	MinnDakota Wind LLC	
Moraine Wind II, LLC	Moraine Wind II, LLC	
* Moraine Wind, L.L.C.	Moraine Wind, L.L.C.	
N A E Lakota Ridge, LLC	N A E Lakota Ridge, LLC	
N A E Shaokatan Hills, LLC	N A E Shaokatan Hills, LLC	
NAE Shaokatan, LLC		
	Autumn Hills, LLC	
	Jack River, LLC	
	Jessica Mills, LLC	
	Julia Hills, LLC	
	Sun River, LLC	
	Tsar Nicholas, LLC	
Neshkoro (Neshonoc)	Neshkoro (Neshonoc)	
North Community Turbines LLC	North Community Turbines LLC	
North Star Solar		
North Wind Turbines LLC	North Wind Turbines LLC	
Odell Wind Farm, LLC	Odell Wind Farm, LLC	
Olsen Wind Farm	Olsen Wind Farm	
* Pine Bend	Pine Bend	
Pipestone		
	Carstensen Wind, LLC	
	Greenback Energy, LLC	
	Lucky Wind, LLC	

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	Northern Lights Wind, LLC	
	Stahl Wind Energy, LLC	
Prairie Rose Wind, LLC	Prairie Rose Wind, LLC	
Rapidan Hydro, LLC	Rapidan Hydroelectric Facility	
Ridgewind Power Partners, LLC	Ridgewind Power Partners, LLC	
Rock County Energy	Rock County Energy III	
	Rock County Energy IV	
	Rock County Energy V	
	Rock County Energy VI	
	Rock County Energy VII	
	Rock County Energy VIII	
	Rock County Energy IX	
Rock Ridge Power Partners LLC	Rock Ridge Power Partners LLC	
Ruthton Ridge		
	Florence Hills, LLC	
	Hadley Ridge, LLC	
	Hope Creek, LLC	
	Ruthton Ridge, LLC	
	Soliloquoy Ridge, LLC	
	Spartan Hills, LLC	
	Twin Lake Hills, LLC	
	Winters Spawn, LLC	
SAF Hydroelectric, L.L.C.	SAF Hydroelectric, L.L.C.	
Shane's Wind Machine LLC	Shane's Wind Machine LLC	
Slayton Solar, LLC	Slayton Solar, LLC	
South Ridge Power Partners, LLC	South Ridge Power Partners, LLC	
The City of St. Cloud Hydro	St Cloud Hydro	
St. Olaf College	St. Olaf College	
Tholen Transmission-Trust	*Detail Below*	
	Gary J.T.	
	Mark J.P.	
	Jenna M.T.	
	Krysta J.T.	
	Theresa M.T	
	MacBeth - 3	
	MacBeth - 1	
	MacBeth - 2	
Uilk Wind Farm, LLC	Uilk Wind Farm, LLC	
UMORE Park, LLC	University of Minnesota Regents	
Valley View Transmission	Valley View Transmission	
Velva Windfarm, LLC	Velva Windfarm, LLC	
Viking Wind Partners		
	Buffalo Ridge Wind Farm, LLC	
	Moulton Heights Wind Power Project, LLC	
	Muncie Power Partners, LLC	
	North Ridge Wind Farm, LLC	
	Vandy South Project, LLC	
	Viking Wind Farm, LLC	
	Vindy Power Partners, LLC	
	Wilson-West Wind Farm, LLC	
EnXco, Inc.	*see Viking Wind Group*	

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Docket No. E002/M-19-0033
OAG Information Request No. 4
Attachment A, Page 4 of 4

Western Area Power Administration	Lower Sioux Tribe	
Westridge	Bisson	
	Westridge	
Windcurrent Farms, L.L.C.	Windcurrent Farms, L.L.C.	
Windvest Power Partners, LLC	Windvest Power Partners, LLC	
Winona County Wind LLC	Winona County Wind LLC	
WM Renewable Energy, LLC	WM Renewable Energy, LLC	
Woodstock Hills, L.L.C.	Woodstock Hills, L.L.C.	
Woodstock Municipal Wind, LLC	Woodstock Municipal Wind, LLC	
Zephyr Wind LLC	Zephyr Wind LLC	

PROTECTED DATA ENDS]

*PPAs terminated December 2018

COMMERCE DEPARTMENT

News

Our mission is to protect the public interest, advocate for Minnesota consumers, ensure a strong, competitive and fair marketplace, strengthen the state's economic future; and serve as a trusted public resource for consumers and businesses.

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Walz, Flanagan propose plan to achieve 100 percent clean energy in Minnesota by 2050

March 4, 2019 | Energy

ST. PAUL – Governor Tim Walz and Lieutenant Governor Peggy Flanagan today announced their One Minnesota Path to Clean Energy – a set of policy proposals that will lead Minnesota to 100 percent clean energy in the state's electricity sector by 2050. The policies build on the success that Minnesota has already achieved in reducing dependence on fossil fuels and increasing the use of clean energy resources to power the state while ensuring reliable, affordable electricity.

"Climate change is an existential threat," Governor Tim Walz said. "We must take immediate action. If Washington won't lead, Minnesota will. That is why I am proud to announce a set of policy proposals that will lead Minnesota to 100% clean energy in the state's electricity sector by 2050. These proposals would put us at the forefront of addressing climate change. Minnesota will pioneer the green energy economy—creating jobs while protecting our planet for generations to come."

"We must take immediate action to protect our planet for future generations," said Lieutenant Governor Flanagan. "We need to stop burning fossil fuels because it pollutes our environment, it's changing our climate for the worse and it's no longer economical. This plan sets a clear date and destination for Minnesota's clean energy journey, along with the pathway to get us there. Minnesota should be a state that continues to lead on this, and we know we can."

“Minnesota is known as a national leader in setting and achieving clean energy goals, and we now have the opportunity to take this leadership to a new level,” said Commerce Commissioner Steve Kelley, whose agency administers the state’s energy policies and programs. “These new policies will not only ensure reliable, affordable and sustainable electricity for Minnesota. They will also give us a cleaner, healthier environment and a strong clean energy economy. Already, more than 59,000 Minnesotans work in clean energy, with 40 percent of these jobs in Greater Minnesota.”

“We must achieve carbon-neutrality by mid-century and 100 percent carbon-free electricity is the bedrock of that goal,” said Michael Noble, executive director, Fresh Energy. “The announcement today by the Walz Administration and the Department of Commerce helps lead a nation needing leadership. We look forward to working alongside the Administration to accelerate Minnesota’s transition to our clean energy future.”

"In December, Xcel Energy made an historic commitment to deliver carbon-free electricity by 2050,” said LIUNA Minnesota & North Dakota Council Representative Joel Smith. “Governor Walz made clear today that he wants to put our state on the same path, with a proposal that includes strong protections for Minnesota workers and communities. LIUNA Minnesota & North Dakota stands ready to help. Our members have built and maintained Minnesota’s energy infrastructure for generations. We look forward to building Minnesota’s renewable energy future one wind turbine and solar array at a time, while continuing to safely maintain our carbon-free nuclear power plants."

“The 100% carbon-free commitment, coupled with the Clean Energy First changes to resource planning will fully decarbonize Minnesota's electric supply mix, a critical component of Minnesota's response to global climate change,” said Chris Duffrin-President, Center for Energy and Environment. “One part of the package cleans up Minnesota’s electricity supply. The other part empowers Minnesotans on how, when, and how efficiently they use that clean electricity supply. Both are necessary for Minnesota to once again lead by example on climate and clean energy.”

Xcel Energy, Minnesota’s largest utility, has already publicly committed to generate 100 percent of its electricity from clean energy by 2050. Two states – California and Hawaii – have adopted mandates for 100 percent clean energy. More than 100 major global companies have also pledged to meet their energy needs with 100 percent clean energy by 2050 or sooner, with Minnesota’s own 3M being the latest to make this commitment.

Governor Walz’s One Minnesota Path to Clean Energy has three parts:

100 Percent Clean Energy by 2050. This standard would require all electric utilities in Minnesota to use only carbon-free energy resources by 2050, while allowing each utility the flexibility to choose how and at what pace they meet the standard. The proposal includes provisions to assist workers and communities affected by the transition, while prioritizing local jobs and prevailing wages for large new clean energy projects.

Clean Energy First. This regulatory policy would require that, whenever a utility proposes to replace or add new power generation, it must prioritize energy efficiency and clean energy resources over fossil fuels. This policy would strengthen an existing renewable energy preference in Minnesota law, and it would allow for fossil fuel-based power only if needed to ensure reliable, affordable electricity.

Energy Optimization. This proposal would raise Minnesota's Energy Efficiency Resource Standard for investor-owned electric utilities and expand the Conservation Improvement Program that helps Minnesota households and businesses save on their utility bills by using energy more efficiently. It would also encourage utilities to develop innovative new programs to help consumers and businesses switch to more efficient, cleaner energy. In addition, it would target more energy-saving assistance for low-income households.

These policies build on the success of Minnesota's Next Generation Energy Act, passed in 2007 with near universal legislative support and signed into law by Gov. Tim Pawlenty. The law requires utilities to get at least 25 percent of their electricity from renewable energy sources by 2025.

Minnesota has already effectively achieved that standard. By the end of 2017, 25 percent of the electricity generated in Minnesota came from renewable sources, such as wind and solar. Meanwhile, electricity produced in the state from coal declined to 39 percent in 2017 from 59 percent in 2007.

The Next Generation Energy Act also set a goal of reducing the state's greenhouse gas pollution by 15 percent by 2015 and 30 percent by 2025, from a 2005 base. As of 2016, greenhouse gas pollution from electricity had already declined about 29 percent since 2005.

The decrease is due to less coal and more clean energy being used to generate electricity in the state, as well as the positive impact of energy conservation measures. Several Minnesota utilities have already committed to additional coal plant closures that will further reduce greenhouse gas pollution produced by the electricity sector.

Permalink: http://mn.gov/commerce/media/news/index.jsp?id=17-374074 (http://mn.gov/commerce/media/news/index.jsp?id=17-374074)

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3/4/2019 10:50:35 AM

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Energy

PUBLIC VERSION

Office of the Revisor of Statutes

HF 1956 as introduced - 91st Legislature (2019 - 2020) Posted on 03/11/2019 05:16pm

KEY: ~~stricken~~ = removed, old language. underscored = added, new language.

Version List Authors and Status Pdf Rtf

Bill Text Versions

Engrossments

Introduction Posted on 03/04/2019

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Current Version - as introduced

A bill for an act

relating to energy; establishing the Clean Energy First Act; requiring electric utilities to meet resource needs using clean energy resources; modifying the definition of biomass as an eligible energy technology; increasing the proportion of energy that electricity-generating utilities must supply from renewable sources and setting target dates by which those goals must be achieved; updating the state's energy savings policy goal and establishing the Conservation Improvement Program Modernization Act of 2019;amending Minnesota Statutes 2018, sections 216B.16, subdivisions 6, 13; 216B.1645, subdivisions 1, 2; 216B.1691, subdivisions 1, 2b, 9, by adding a subdivision; 216B.2401; 216B.241, subdivisions 1a, 1c, 1d, 1f, 2, 2b, 7, by adding a subdivision; 216B.2422, subdivisions 1, 2, 4, 5, by adding a subdivision; 216F.04; 216F.08; proposing coding for new law in Minnesota Statutes, chapter 216B; repealing Minnesota Statutes 2018, section 216B.241, subdivisions 1, 2c, 4, 5.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

ARTICLE 1
CLEAN ENERGY FIRST ACT

Section 1. **TITLE.**

This article may be referred to as the "Clean Energy First Act."

Sec. 2. Minnesota Statutes 2018, section 216B.16, subdivision 6, is amended to read:

Subd. 6. **Factors considered, generally.** The commission, in the exercise of its powers under this chapter to determine just and reasonable rates for public utilities, shall give due consideration to the public need for adequate, efficient, and reasonable service and to the need of the public utility for revenue sufficient to enable it to meet the cost of furnishing the service, including adequate provision for depreciation of its utility property used and useful in rendering service to the public, and to earn a fair and reasonable return upon the investment in such property. In determining the rate base upon which the utility is to be allowed to earn a fair rate of return, the commission shall give due consideration to evidence of the cost of the property when first devoted to public use, to prudent acquisition cost to the public utility less appropriate depreciation on each, to construction work in progress, to offsets in the nature of capital provided by sources other than the investors, and to other expenses of a capital nature. For purposes of determining rate base, the commission shall consider the original cost of utility property included in the base and shall make no allowance for its estimated current replacement value. 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 any positive net book value of the facility as determined by the commission.

Sec. 3. Minnesota Statutes 2018, section 216B.16, subdivision 13, is amended to read:

Subd. 13. **Economic and community development.** The commission may allow a public utility to recover from ratepayers the expenses incurred (1) for economic and

community development, and (2) to employ local workers to construct and maintain generation facilities that supply power to the utility's customers.

Sec. 4. Minnesota Statutes 2018, section 216B.1645, subdivision 1, is amended to read:

Subdivision 1. **Commission authority.** Upon the petition of a public utility, the Public Utilities Commission shall approve or disapprove power purchase contracts, investments, or expenditures entered into or made by the utility to satisfy the wind and biomass mandates contained in sections 216B.169, 216B.2423, and 216B.2424, and to satisfy the renewable energy objectives and standards set forth in section 216B.1691, including reasonable investments and expenditures, net of revenues, made to:

(1) transmit the electricity generated from sources developed under those sections that is ultimately used to provide service to the utility's retail customers, including studies necessary to identify new transmission facilities needed to transmit electricity to Minnesota retail customers from generating facilities constructed to satisfy the renewable energy objectives and standards, provided that the costs of the studies have not been recovered previously under existing tariffs and the utility has filed an application for a certificate of need or for certification as a priority project under section 216B.2425 for the new transmission facilities identified in the studies;

(2) provide storage facilities for renewable energy generation facilities that contribute to the reliability, efficiency, or cost-effectiveness of the renewable facilities; or

(3) develop renewable energy sources from the account required in section 116C.779.

Sec. 5. Minnesota Statutes 2018, section 216B.1645, subdivision 2, is amended to read:

Subd. 2. **Cost recovery.** The expenses incurred by the utility over the duration of the approved contract or useful life of the investment ~~and,~~ expenditures made pursuant to section 116C.779 ~~shall be~~, and employment of local workers to construct and maintain generation facilities that supply power to the utility's customers are recoverable from the ratepayers of the utility, to the extent they are not offset by utility revenues attributable to the contracts, investments, or expenditures. Upon petition by a public utility, the commission shall approve or approve as modified a rate schedule providing for the automatic adjustment of charges to recover the expenses or costs approved by the commission under subdivision 1, which, in the case of transmission expenditures, are limited to the portion of actual transmission costs that are directly allocable to the need to transmit power from the renewable sources of energy. The commission may not approve recovery of the costs for that portion of the power generated from sources governed by this section that the utility sells into the wholesale market.

Sec. 6. Minnesota Statutes 2018, section 216B.1691, subdivision 9, is amended to read:

Subd. 9. **Local benefits.** The commission shall take all reasonable actions within its statutory authority to ensure this section is implemented to maximize benefits to Minnesota citizens and local workers as defined in section 216B.2422, subdivision 1, balancing factors such as local ownership of or participation in energy production, local job impacts as defined in section 216B.2422, subdivision 1, development and ownership of eligible energy technology facilities by independent power producers, Minnesota utility ownership of eligible energy technology facilities, the costs of energy generation to satisfy the renewable standard, and the reliability of electric service to Minnesotans.

Sec. 7. Minnesota Statutes 2018, section 216B.2422, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) For purposes of this section, the terms defined in this subdivision have the meanings given them.

(b) "Utility" means an entity with the capability of generating 100,000 kilowatts or more of electric power and serving, either directly or indirectly, the needs of 10,000 retail customers in Minnesota. Utility does not include federal power agencies.

(c) "Renewable energy" means electricity generated through use of any of the following resources:

(1) wind;

(2) solar;

(3) geothermal;

(4) hydro;

(5) trees or other vegetation;

(6) landfill gas; or

(7) predominantly organic components of wastewater effluent, sludge, or related by-products from publicly owned treatment works, but not including incineration of wastewater sludge.

(d) "Resource plan" means a set of resource options that a utility could use to meet the service needs of its customers over a forecast period, including an explanation of the supply and demand circumstances under which, and the extent to which, each resource option

would be used to meet those service needs. These resource options include using, refurbishing, and constructing utility plant and equipment, buying power generated by other entities, controlling customer loads, and implementing customer energy conservation.

(e) "Refurbish" means to rebuild or substantially modify an existing electricity generating resource of 30 megawatts or greater.

(f) "Clean energy resource" means (1) renewable energy, an energy storage system, and energy efficiency and load management, as defined in section 216B.241, subdivision 1, or (2) a carbon-free resource, as defined under paragraph (g) and determined by the commission under subdivision 4, paragraph (g).

(g) "Carbon-free resource" means a generation technology that, when operating, does not contribute to statewide greenhouse gas emissions, as defined in section 216H.01, subdivision 2. Carbon-free resource does not include a nuclear generation facility that currently exists in Minnesota.

(h) "Energy storage system" means a commercially available technology that:

(1) uses mechanical, chemical, or thermal processes to:

(i) store energy and deliver the stored energy for use at a later time; or

(ii) store thermal energy for direct use for heating or cooling at a later time in a manner that reduces the demand for energy at the later time;

(2) if being used for electric grid benefits, is (i) operationally visible to the distribution or transmission entity managing it, and (ii) capable of being controlled by the distribution or transmission entity to enable and optimize the safe and reliable operation of the electric system; and

(3) achieves the following:

(i) reduces peak electrical demand;

(ii) defers the need or substitutes for an investment in electric generation, transmission, or distribution assets;

(iii) improves the reliable operation of the electrical transmission or distribution systems; and

(iv) lowers customer costs by storing energy when the cost of generating or purchasing energy is low and delivering energy to customers when costs are high.

(i) "Nonrenewable energy facility" means a generation facility, other than a nuclear facility, that does not use a renewable energy or other clean energy resource.

(j) "Local job impacts" means the impacts of a certificate of need, a power purchase agreement, or commission approval of a new or refurbished energy facility on the availability of construction employment opportunities to local workers.

(k) "Local workers" means workers employed to construct and maintain energy infrastructure that are Minnesota residents, residents of the utility's service territory, or who permanently reside within 150 miles of a proposed new or refurbished energy facility.

Sec. 8. Minnesota Statutes 2018, section 216B.2422, subdivision 2, is amended to read:

Subd. 2. **Resource plan filing and approval.** (a) A utility shall file a resource plan with the commission periodically in accordance with rules adopted by the commission. The commission shall approve, reject, or modify the plan of a public utility, as defined in section 216B.02, subdivision 4, consistent with the public interest.

(b) In the resource plan proceedings of all other utilities, the commission's order shall be advisory and the order's findings and conclusions shall constitute prima facie evidence which may be rebutted by substantial evidence in all other proceedings. With respect to utilities other than those defined in section 216B.02, subdivision 4, the commission shall consider the filing requirements and decisions in any comparable proceedings in another jurisdiction.

(c) As a part of its resource plan filing, a utility shall include the least cost plan for meeting 50 and 75 percent of all energy needs from both new and refurbished generating facilities through a combination of ~~conservation~~ clean energy and ~~renewable energy~~ carbon-free resources.

Sec. 9. Minnesota Statutes 2018, section 216B.2422, subdivision 4, is amended to read:

Subd. 4. **Preference for ~~renewable energy facility~~ clean energy resources.** (a) The commission shall not approve a new or refurbished nonrenewable energy facility located in Minnesota in ~~an integrated resource plan or~~ a certificate of need, pursuant to section 216B.243, nor shall the commission approve a power purchase agreement for power from in-state generation or allow rate recovery pursuant to section 216B.16 for such a nonrenewable energy facility, unless the utility has demonstrated that a renewable energy facility, alone or in combination with other clean energy resources, is not in the public interest.

(b) When making the public interest determination under paragraph (a), the commission must consider:

(1) whether the record in the proposed certificate of need or proposed power purchase agreement for the new or refurbished nonrenewable energy facility in Minnesota demonstrates the utility is unable affordably and reliably to meet the resource need the facility is proposed for solely through the addition of clean energy resources, after evaluation by the utility, the department, and other parties to the docket;

~~(1)~~ (2) whether the ~~resource plan~~ proposed certificate of need or proposed power purchase agreement helps the utility achieve the greenhouse gas reduction goals under section 216H.02, the renewable energy standard under section 216B.1691, or the solar energy standard under section 216B.1691, subdivision 2f;

~~(2)~~ (3) impacts on local and regional grid reliability;

~~(3)~~ (4) utility and ratepayer impacts resulting from the intermittent nature of renewable energy facilities, including but not limited to the costs of purchasing wholesale electricity in the market and the costs of providing ancillary services; and

~~(4)~~ (5) utility and ratepayer impacts resulting from reduced exposure to fuel price volatility, changes in transmission costs, portfolio diversification, and environmental compliance costs, as well as utility and ratepayer impacts that might result from additional investment in nonrenewable energy facilities.

(c) If the commission finds the utility has made the demonstration required under paragraph (a), the commission may approve a utility's proposal for a new or refurbished nonrenewable energy facility located in Minnesota, as necessary to ensure reliable and affordable service to the utility's customers.

(d) This subdivision does not apply to an energy facility approved by the legislature under Laws 2017, chapter 5.

(e) When evaluating the reliability of proposed resources, the commission must consider the ability of proposed resources to provide (1) essential reliability services needed by utility customers or the electric system, including frequency response, balancing services, and voltage control, and (2) energy and capacity.

(f) Nothing in this section impacts a decision to continue operating a nuclear facility that is generating energy in Minnesota as of June 1, 2019. If a decision is made to retire an existing nuclear unit, the process in paragraphs (a) to (c) applies to the identification of replacement resources.

(g) The commission may, by order, add to the list of resources it determines are clean energy resources for the purposes of this section upon a determination that the resource is carbon free and cost competitive when compared with other carbon-free alternatives.

Sec. 10. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision to read:

Subd. 4a. **Preference for local job creation.** As a part of its resource plan filing, a utility must report on associated local job impacts and the steps the utility and its energy suppliers and contractors are taking to maximize the availability of construction employment opportunities for local workers. The commission must consider local job impacts and give preference to proposals that maximize the creation of construction employment opportunities for local workers, consistent with the public interest, when evaluating any utility proposal that involves the selection or construction of facilities used to generate or deliver energy to serve the utility's customers, including but not limited to a certificate of need, a power purchase agreement, or commission approval of a new or refurbished electric generation facility.

Sec. 11. Minnesota Statutes 2018, section 216B.2422, subdivision 5, is amended to read:

Subd. 5. **Bidding; exemption from certificate of need proceeding.** (a) A utility may select resources to meet its projected energy demand through a bidding process approved or established by the commission. A utility shall use the environmental cost estimates determined under subdivision 3 and consider local job impacts in evaluating bids submitted in a process established under this subdivision.

(b) Notwithstanding any other provision of this section, if an electric power generating plant, as described in section 216B.2421, subdivision 2, clause (1), is selected in a bidding process approved or established by the commission, a certificate of need proceeding under section 216B.243 is not required.

(c) A certificate of need proceeding is also not required for an electric power generating plant that has been selected in a bidding process approved or established by the commission, or such other selection process approved by the commission, to satisfy, in whole or in part, the wind power mandate of section 216B.2423 or the biomass mandate of section 216B.2424.

Sec. 12. **COORDINATED ELECTRIC TRANSMISSION STUDY.**

(a) Each entity subject to Minnesota Statutes, section 216B.2425, must participate in a coordinated engineering study to identify transmission network enhancements necessary to maintain system reliability in the event large generation resources are retired. Specifically, the study must evaluate what enhancements are necessary in the event large generation

resources that reach the end of the large generation resource's depreciation term or operating license term within 20 years of the effective date of this section are retired. The study must also evaluate what transmission enhancements may be necessary to interconnect replacement generation and renewable resource additions, including generation tie lines, anticipated by 2035 in any utility's integrated resource plan filed with or approved by the Public Utilities Commission.

(b) When setting the scope for the study and as needed while the study is being conducted, utilities must consult with the commissioner of commerce, technical representatives of renewable energy resource developers, and other interested entities to discuss and identify needed generation tie lines to support the continued orderly development of renewable resources in Minnesota. The study must include any analysis performed by the Midcontinent Independent System Operator.

(c) A report on the study must be completed and submitted to the Public Utilities Commission by November 1, 2020, and include a preliminary plan to build the needed transmission network enhancements. Reasonable and prudent costs for the study are recoverable through the mechanism provided under Minnesota Statutes, section 216B.1645, subdivision 2.

Sec. 13. **EFFECTIVE DATE.**

This article is effective August 1, 2019, and applies only to dockets initiated at the Public Utilities Commission on or after that date.

ARTICLE 2
CARBON-FREE ENERGY STANDARD

Section 1. Minnesota Statutes 2018, section 216B.1691, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) Unless otherwise specified in law, "eligible energy technology" means an energy technology that generates electricity from the following renewable energy sources:

(1) solar;

(2) wind;

(3) hydroelectric with a capacity of less than 100 megawatts;

(4) hydrogen, provided that after January 1, 2010, the hydrogen must be generated from the resources listed in this paragraph; or

(5) biomass, which includes, without limitation, landfill gas; an anaerobic digester system; the predominantly organic components of wastewater effluent, sludge, or related by-products from publicly owned treatment works, but not including incineration of wastewater sludge to produce electricity; and an energy recovery facility used to capture the heat value of mixed municipal solid waste or refuse-derived fuel from mixed municipal solid waste as a primary fuel.

(b) "Electric utility" means a public utility providing electric service, a generation and transmission cooperative electric association, a municipal power agency, or a power district.

(c) "Total retail electric sales" means the kilowatt-hours of electricity sold in a year by an electric utility to retail customers of the electric utility or to a distribution utility for distribution to the retail customers of the distribution utility. "Total retail electric sales" does not include the sale of hydroelectricity supplied by a federal power marketing administration or other federal agency, regardless of whether the sales are directly to a distribution utility or are made to a generation and transmission utility and pooled for further allocation to a distribution utility.

(d) "Carbon-free" means a technology that generates electricity without emitting carbon dioxide.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 2. Minnesota Statutes 2018, section 216B.1691, subdivision 2b, is amended to read:

Subd. 2b. **Modification or delay of standard.** (a) The commission shall modify or delay the implementation of a standard obligation, in whole or in part, if the commission determines it is in the public interest to do so. The commission, when requested to modify or delay implementation of a standard, must consider:

(1) the impact of implementing the standard on its customers' utility costs, including the economic and competitive pressure on the utility's customers;

(2) the environmental costs that would be incurred as a result of a delay or modification, based on the environmental cost values established in section 216B.2422, subdivision 3;

(3) the effects of implementing the standard on the reliability of the electric system;

~~(3)~~ (4) technical advances or technical concerns;

~~(4)~~ (5) delays in acquiring sites or routes due to rejection or delays of necessary siting or other permitting approvals;

~~(5)~~ (6) delays, cancellations, or nondelivery of necessary equipment for construction or

commercial operation of an eligible energy technology facility;

~~(6)~~ (7) transmission constraints preventing delivery of service; and

~~(7)~~ (8) other statutory obligations imposed on the commission or a utility.

(b) The commission may modify or delay implementation of a standard obligation under paragraph (a), clauses (1) to ~~(3)~~ (4) only if it finds implementation would cause significant rate impact, requires significant measures to address reliability, would cause significant environmental costs, or raises significant technical issues. The commission may modify or delay implementation of a standard obligation under paragraph (a), clauses ~~(4)~~ (5) to ~~(6)~~ (7) only if it finds that the circumstances described in those clauses were due to circumstances beyond an electric utility's control and make compliance not feasible.

(c) When evaluating transmission capacity constraints under paragraph (a), clause (7), the commission must consider:

(1) whether the utility has, in a timely fashion, undertaken reasonable measures under its control and consistent with its obligations under local, state, and federal laws and regulations, and its obligations as a member of the Midcontinent Independent System Operator, to acquire sites, necessary permit approvals, and necessary equipment to develop and construct new transmission lines or upgrade existing transmission lines to transmit electricity generated by eligible energy technologies; and

(2) whether the utility has taken all reasonable operational measures to maximize cost-effective electricity delivery from eligible energy technologies in advance of transmission availability.

~~(b)~~ (d) When considering whether to delay or modify implementation of a standard obligation, the commission must give due consideration to a preference for electric generation through use of eligible energy technology and to the achievement of the standards set by this section.

~~(c)~~ (e) An electric utility requesting a modification or delay in the implementation of a standard must file a plan to comply with its standard obligation in the same proceeding that it is requesting the delay.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 3. Minnesota Statutes 2018, section 216B.1691, is amended by adding a subdivision to read:

Subd. 2g. **Carbon-free standard.** (a) By 2050, 100 percent of the electricity each electric utility subject to subdivision 2a, paragraph (a), provides directly to Minnesota retail customers, or indirectly through wholesale sales to a distribution utility serving Minnesota retail customers, must be generated by a technology that is carbon-free.

(b) By 2050, 100 percent of the electricity each electric utility subject to subdivision 2a, paragraph (b), provides directly to Minnesota retail customers, or indirectly through wholesale sales to a distribution utility serving Minnesota retail customers, must be generated by a technology that is carbon-free.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 4. Minnesota Statutes 2018, section 216B.1691, subdivision 9, is amended to read:

Subd. 9. **Local benefits.** (a) The commission shall take all reasonable actions within its statutory authority to ensure this section is implemented ~~to maximize~~ in a manner that maximizes benefits to all Minnesota citizens~~, balancing~~ and local workers throughout the state. Benefits under this subdivision include but are not limited to:

(1) the creation of high-quality jobs in Minnesota that pay wages that support families;

(2) recognition of the rights of workers to organize and unionize;

(3) ensuring that workers have the necessary tools, opportunities, and economic assistance to adapt successfully during the energy transition, particularly in communities that host retiring power plants or that contain historically marginalized and underrepresented populations;

(4) ensuring that all Minnesotans share (i) the benefits of clean and renewable energy, and (ii) the opportunity to participate fully in the clean energy economy;

(5) ensuring that air emissions are reduced in communities historically burdened by pollution and the impacts of climate change; and

(6) the provision of affordable electric service to Minnesotans, particularly to low-income consumers.

(b) The commission must also implement this section in a manner that balances factors such as local ownership of or participation in energy production, local job impacts, development and ownership of eligible energy technology facilities by independent power producers, Minnesota utility ownership of eligible energy technology facilities, the costs of energy generation to satisfy the renewable ~~standard~~ and carbon-free standards, and the reliability of electric service to Minnesotans.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 5. Minnesota Statutes 2018, section 216B.2422, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) For purposes of this section, the terms defined in this subdivision have the meanings given them.

(b) "Utility" means an entity with the capability of generating 100,000 kilowatts or more of electric power and serving, either directly or indirectly, the needs of 10,000 retail customers in Minnesota. Utility does not include federal power agencies.

(c) "Renewable energy" means electricity generated through use of any of the following resources:

(1) wind;

(2) solar;

(3) geothermal;

(4) hydro;

(5) trees or other vegetation;

(6) landfill gas; or

(7) predominantly organic components of wastewater effluent, sludge, or related by-products from publicly owned treatment works, but not including incineration of wastewater sludge.

(d) "Resource plan" means a set of resource options that a utility could use to meet the service needs of its customers over a forecast period, including an explanation of the supply and demand circumstances under which, and the extent to which, each resource option would be used to meet those service needs. These resource options include using, refurbishing, and constructing utility plant and equipment, buying power generated by other entities, controlling customer loads, and implementing customer energy conservation.

(e) "Refurbish" means to rebuild or substantially modify an existing electricity generating resource of 30 megawatts or greater.

(f) "Local job impacts" means the impacts of an integrated resource plan, a certificate of need, a power purchase agreement, or commission approval of a new or refurbished electric generation facility on the availability of high-quality construction employment opportunities for local workers.

(g) "Local workers" means workers employed in the construction and maintenance of energy infrastructure that are Minnesota residents, residents of the utility's service territory, or permanently reside within 150 miles of an electric generation facility.

Sec. 6. Minnesota Statutes 2018, section 216F.04, is amended to read:

216F.04 SITE PERMIT.

(a) No person may construct an LWECS without a site permit issued by the Public Utilities Commission.

(b) Any person seeking to construct an LWECS shall submit an application to the commission for a site permit in accordance with this chapter and any rules adopted by the commission. The permitted site need not be contiguous land.

(c) The commission shall make a final decision on an application for a site permit for an LWECS within 180 days after acceptance of a complete application by the commission. The commission may extend this deadline for cause.

(d) The commission may place conditions in a permit and may deny, modify, suspend, or revoke a permit.

(e) The commission may require, as a condition of permit issuance, that the recipient of a site permit to construct an LWECS with a nameplate capacity above 25,000 kilowatts and all of the permit recipient's construction contractors and subcontractors on the project pay the prevailing wage rate, as defined in section 177.42. The commission may also require, as a condition of modifying a site permit for an LWECS repowering project as defined in section 216B.243, subdivision 8, paragraph (b), that the recipient of the site permit and all of the recipient's construction contractors and subcontractors on the repowering project pay the prevailing wage rate as defined in section 177.42.

Sec. 7. Minnesota Statutes 2018, section 216F.08, is amended to read:

216F.08 PERMIT AUTHORITY; ASSUMPTION BY COUNTIES.

(a) A county board may, by resolution and upon written notice to the Public Utilities Commission, assume responsibility for processing applications for permits required under this chapter for LWECS with a combined nameplate capacity of less than 25,000 kilowatts. The responsibility for permit application processing, if assumed by a county, may be delegated by the county board to an appropriate county officer or employee. Processing by a county shall be done in accordance with procedures and processes established under chapter 394.

(b) A county board that exercises its option under paragraph (a) may issue, deny, modify, impose conditions upon, or revoke permits pursuant to this section. The action of the county board about a permit application is final, subject to appeal as provided in section 394.27.

(c) The commission shall, by order, establish general permit standards, including appropriate property line set-backs, governing site permits for LWECS under this section. The order must consider existing and historic commission standards for wind permits issued by the commission. The general permit standards shall apply to permits issued by counties and to permits issued by the commission for LWECS with a combined nameplate capacity of less than 25,000 kilowatts. The commission or a county may grant a variance from a general permit standard if the variance is found to be in the public interest, provided all LWECS site permits issued by the commission or a county and all modifications of site permits issued by the commission or a county for repowering projects comply with the prevailing wage rate requirements under section 216F.04, paragraph (e).

(d) The commission and the commissioner of commerce shall provide technical assistance to a county with respect to the processing of LWECS site permit applications.

ARTICLE 3
ENERGY OPTIMIZATION ACT

Section 1. **CITATION; CONSERVATION IMPROVEMENT PROGRAM MODERNIZATION ACT.**

This article may be referred to as the "Energy Optimization Act of 2019."

Sec. 2. **[216B.1697] INNOVATIVE CLEAN TECHNOLOGIES.**

(a) For purposes of this section, "innovative clean technology" means advanced energy technology that is (1) environmentally superior to technologies currently in use, (2) expected to offer energy-related, environmental, or economic benefits, and (3) not widely deployed by the utility industry.

(b) A public utility may petition the commission for authorization to invest in a project or projects to deploy one or more innovative clean technologies to further the development, commercialization, and deployment of those technologies for the benefit of utility customers.

(c) The commission may approve a petition under paragraph (b) if it finds:

(1) the technologies to be deployed are innovative clean technologies;

(2) the utility is meeting its energy conservation goals under section 216B.241; and

(3) the petition would not result in utility spending greater than $5,000,000 per year on innovative clean technologies under this section.

(d) The commission may also permit a public utility to file rate schedules containing provisions to automatically adjust charges for public utility service in direct relation to changes in prudent costs incurred by a utility under this section, up to $5,000,000 each year. To the extent the utility investment under this section is for a capital asset, the utility may request the asset be included in the utility's rate base.

Sec. 3. Minnesota Statutes 2018, section 216B.2401, is amended to read:

216B.2401 ENERGY SAVINGS AND OPTIMIZATION POLICY GOAL.

(a) The legislature finds that energy savings are an energy resource, and that cost-effective energy savings are preferred over all other energy resources. In addition, the legislature finds that optimizing when and how energy consumers manage energy use can provide significant benefits to the consumers and to the utility system as a whole. The legislature further finds that cost-effective energy savings and load management programs should be procured systematically and aggressively in order to reduce utility costs for businesses and residents, improve the competitiveness and profitability of businesses, create more energy-related jobs, reduce the economic burden of fuel imports, and reduce pollution and emissions that cause climate change. Therefore, it is the energy policy of the state of Minnesota to achieve annual energy savings ~~equal~~ equivalent to at least ~~1.5~~ 2.5 percent of annual retail energy sales of electricity and natural gas through ~~cost-effective energy conservation improvement programs and rate design, energy efficiency achieved by energy consumers without direct utility involvement, energy codes and appliance standards, programs designed to transform the market or change consumer behavior, energy savings resulting from efficiency improvements to the utility infrastructure and system, and other efforts to promote energy efficiency and energy conservation.~~ multiple means, including but not limited to:

(1) cost-effective energy conservation improvement programs, and efficient fuel-switching utility programs, under sections 216B.2402 to 216B.241;

(2) rate design;

(3) energy efficiency achieved by energy consumers without direct utility involvement;

(4) advancements in statewide energy codes and cost-effective appliance and equipment standards;

(5) programs designed to transform the market or change consumer behavior;

(6) energy savings resulting from efficiency improvements to the utility infrastructure and system; and

(7) other efforts to promote energy efficiency and energy conservation.

(b) A utility should design and offer to their customers load management programs that enable: (1) customers to maximize the economic value gained from the energy purchased from their utility service providers; and (2) utilities to optimize the infrastructure and generation capacity needed to effectively serve customers and to facilitate the integration of renewable energy into the energy system. The commissioner must provide a reasonable estimate for progress toward this statewide energy savings goal in the annual report required under section 216B.241, subdivision 1c, along with recommendations for administrative or legislative initiatives to increase energy savings toward that goal. The commissioner must also report annually the energy productivity of the state's economy by providing an estimate of the ratio of economic output produced in a previous year to the primary energy inputs used in that year.

Sec. 4. **[216B.2402] DEFINITIONS.**

(a) For the purposes of section 216B.16, subdivision 6b, and sections 216B.2401 to 216B.241, the terms defined in this section have the meanings given them.

(b) "Consumer-owned utility" means a municipal utility or a cooperative electric association.

(c) "Cumulative lifetime savings" means the total electric energy or natural gas savings in a given year from energy conservation improvements installed that year or in previous years that are still operational and providing savings in that year because the measures have not reached the end of the measure's useful life.

(d) "Efficient fuel-switching improvement" means a project that (1) results in converting a customer from use of a fuel to the use of electric energy or natural gas delivered at retail by a utility subject to this section, resulting in a net increase in the use of electric energy or natural gas and a net decrease in source energy consumption on a fuel-neutral basis, and (2) otherwise meets the criteria established in section 216B.2403, subdivision 8. An efficient fuel-switching improvement requires the installation of equipment that utilizes electric energy or natural gas, resulting in a reduction or elimination of use of the previous fuel.

(e) "Energy conservation" means an action that results in a net reduction in electric energy or natural gas consumption.

(f) "Energy conservation improvement" means a project that results in energy efficiency or energy conservation. Energy conservation improvement may include waste heat that is recovered and converted into electricity, but does not include electric utility infrastructure projects approved by the commission under section 216B.1636. Energy conservation improvement includes waste heat recovered and used as thermal energy.

(g) "Energy efficiency" means measures or programs, including energy conservation measures or programs, that target consumer behavior, equipment, processes, or devices designed to produce either an absolute decrease in consumption of electric energy or natural gas or a decrease in consumption of electric energy or natural gas on a per unit of production basis, without reducing the quality or level of service provided to the energy consumer.

(h) "Fuel" means energy consumed by a retail utility customer. Fuel includes electricity, propane, natural gas, heating oil, gasoline, diesel fuel, or steam.

(i) "Fuel neutral" means an approach that compares the use of various fuels for a given end use, using a common metric.

(j) "Gross annual retail energy sales" means the annual electric sales to all retail customers in a utility's or association's Minnesota service territory or natural gas throughput to all retail customers, including natural gas transportation customers, on a utility's distribution system in Minnesota. Gross annual retail energy sales does not include:

(1) gas sales to:

(i) a large energy facility;

(ii) a large customer facility whose natural gas utility has been exempted by the commissioner under section 216B.241, subdivision 1a, paragraph (b), with respect to natural gas sales made to the large customer facility; and

(iii) a commercial gas customer facility whose natural gas utility has been exempted by the commissioner under section 216B.241, subdivision 1a, paragraph (c), with respect to natural gas sales made to the commercial gas customer facility; or

(2) electric sales to a large customer facility whose electric utility has been exempted by the commissioner under section 216B.241, subdivision 1a, paragraph (b), with respect to electric sales made to the large facility.

(k) "Investments and expenses of a public utility" means the investments and expenses incurred by a public utility in connection with an energy conservation improvement.

(l) "Large customer facility" means all buildings, structures, equipment, and installations at a single site that collectively (1) impose a peak electrical demand on an electric utility's system of at least 20,000 kilowatts, measured in the same way as the utility that serves the customer facility measures electric demand for billing purpose, or (2) consume at least 500,000,000 cubic feet of natural gas annually. When calculating peak electrical demand, a large customer facility may include demand offset by on-site cogeneration facilities and,

if engaged in mineral extraction, may aggregate peak energy demand from the large customer facility's mining processing operations.

(m) "Large energy facility" has the meaning given it in section 216B.2421, subdivision 2, clause (1).

(n) "Lifetime energy savings" means the amount of savings a particular energy conservation improvement produces over the improvement's effective useful lifetime.

(o) "Load management" means an activity, service, or technology to change the timing or the efficiency of a customer's use of energy that allows a utility or a customer to respond to local and regional energy system conditions, or to reduce peak demand for electric energy or natural gas. Load management that reduces the customer's net annual energy consumption is also energy conservation.

(p) "Low-income programs" means energy conservation improvement programs that directly serve the needs of low-income persons, including low-income renters.

(q) "Member" has the meaning given to it in section 308B.005, subdivision 15.

(r) "Qualifying utility" means a utility that supplies energy to a customer that enables the customer to qualify as a large customer facility.

(s) "Source energy" means the total amount of fuel required for a given purpose, considering energy losses in the production, transmission, and delivery of the energy.

(t) "Waste heat recovered and used as thermal energy" means capturing heat energy that would be exhausted or dissipated to the environment from machinery, buildings, or industrial processes, and productively using the recovered thermal energy where it was captured or distributing it as thermal energy to other locations where it is used to reduce demand-side consumption of natural gas, electric energy, or both.

(u) "Waste heat recovery converted into electricity" means an energy recovery process that converts otherwise lost energy from the heat of exhaust stacks or pipes used for engines or manufacturing or industrial processes, or the reduction of high pressure in water or gas pipelines.

Sec. 5. **[216B.2403] CUSTOMER-OWNED UTILITIES; ENERGY CONSERVATION AND OPTIMIZATION.**

Subdivision 1. **Applicability.** This section applies to:

(1) a cooperative electric association that provides retail service to more than 5,000 members;

(2) a municipality that provides electric service to more than 1,000 retail customers; and

(3) a municipality with more than 1,000,000,000 cubic feet in annual throughput sales to natural gas retail customers.

Subd. 2. **Consumer-owned utility; energy savings goal.** (a) Each individual consumer-owned utility subject to this section has an annual energy savings goal equivalent to 1.5 percent of gross annual retail energy sales. The annual energy savings goal must be met with a minimum of energy savings from energy conservation improvements equivalent to at least one percent of the consumer-owned utility's gross annual retail energy sales. The balance of energy savings toward the annual energy savings goal must be achieved by the following utility activities:

(1) energy savings from additional energy conservation improvements;

(2) electric utility infrastructure projects, as defined in section 216B.1636, subdivision 1; or

(3) net energy savings from efficient fuel-switching improvements that meet the criteria under subdivision 7.

(b) Nothing in this section limits a utility's ability to report and recognize savings from activities under paragraph (a), clauses (2) and (3), in excess of the utility's annual energy savings provided the utility has met the minimum energy savings goal from energy conservation improvements.

(c) The energy savings goals specified in this section must be calculated based on the most recent three-year, weather-normalized average. A consumer-owned utility that elects to file annual plans may carry forward for up to three years any energy savings in excess of its 1.5 percent energy savings goal in a single year.

(d) A consumer-owned utility subject to this section is not required to make energy conservation improvements that are not cost-effective, even if the improvement is necessary to attain the energy savings goal. A consumer-owned utility subject to this section must make reasonable efforts to implement energy conservation improvements above the minimum level set under this subdivision, if cost-effective opportunities and utility funding are available, considering other potential investments the utility plans to make for the benefit of customers during the term of the plan filed under subdivision 3.

(e) A consumer-owned utility may request that the commissioner adjust its minimum goal for energy savings from energy conservation improvements specified under paragraph (a) for the period of the plan filed under subdivision 3. The request must be made by January 1 of any year when the utility must file a plan under subdivision 4. The request must be based on:

(1) historical energy conservation improvement program achievements;

(2) customer class makeup;

(3) projected load growth;

(4) an energy conservation potential study that estimates the amount of cost-effective energy conservation potential that exists in the utility's service territory;

(5) the cost-effectiveness and quality of the energy conservation programs offered by the utility; and

(6) other factors the commissioner and consumer-owned utility determine warrants an adjustment.

The commissioner must adjust the savings goal to a level the commissioner determines is supported by the record, but must not approve a minimum energy savings goal from energy conservation improvements that is less than one percent of gross annual retail energy sales.

Subd. 3. **Consumer-owned utility; energy savings investments.** (a) Each cooperative electric association and municipality subject to subdivision 2 must spend and invest in the following amounts for energy conservation improvements under this subdivision:

(1) for a municipality, 0.5 percent of its gross operating revenues from the sale of gas and 1.5 percent of its gross operating revenues from the sale of electricity, excluding gross operating revenues from electric and gas service provided in Minnesota to large electric customer facilities; and

(2) for a cooperative electric association, 1.5 percent of its gross operating revenues from service provided in the state, excluding gross operating revenues from service provided in the state to large electric customer facilities indirectly through a distribution cooperative electric association.

(b) Each municipality and cooperative electric association subject to this subdivision must identify and implement energy conservation improvement spending and investments that are appropriate for the municipality or association, except that a municipality or association must not spend or invest for energy conservation improvements that directly benefit a large energy facility or a large electric customer facility that the commissioner has issued an exemption to under section 216B.241, subdivision 1a, paragraph (b).

Subd. 4. **Consumer-owned utility; energy conservation and optimization plans.** (a) By June 1, 2021, each consumer-owned utility must file with the commissioner an energy conservation and optimization plan that describes the programs for energy conservation, efficient fuel-switching improvements and load management programs, and other processes and programs the utility plans to use to achieve its energy-savings goal. The plan may cover a period not to exceed two years. The plan must provide an analysis of the cost-effectiveness of the consumer-owned utility's programs offered under the plan, using a list of baseline energy and capacity savings assumptions developed in consultation with the department. An individual utility program may combine elements of energy conservation, load management, or efficient fuel-switching. Plans received by June 1 must be evaluated by the commissioner based on how well the plan meets the goals set under subdivision 2 by December 1 of the same year, including the commissioner's assessment of whether the plan will likely achieve those goals. Beginning June 1, 2022, and each subsequent June 1, each consumer-owned utility must file: (1) an annual update identifying the status of its annual plan filed under this subdivision, including total expenditures and investments made to date, and any intended changes to the plan; and (2) a summary of the annual energy-savings achievements under a completed plan, and a new plan that complies with this section.

(b) In the filings required under paragraph (a), the consumer-owned utility must provide a description and evaluation of the programs offered by the utility under the plan, including:

(1) energy conservation improvements in the previous period, and its progress toward the minimum energy savings goal from energy conservation improvements described in subdivision 2, including accounting for lifetime savings and cumulative lifetime energy savings under the plan. The evaluation must briefly describe each conservation program the utility offers or plans to offer, and must specify the energy savings or increased efficiency in the use of energy within the service territory of the utility that is the result of the program. The commissioner must review each evaluation and make recommendations, where appropriate, to the consumer-owned utility to increase the effectiveness of conservation improvement activities. The commissioner must consider and may require a consumer-owned utility to undertake a cost-effective program suggested by an outside source, including a political subdivision, nonprofit corporation, or community organization;

(2) load management activities, including an analysis of the reduction in peak load that is the result of the program, and an assessment of the cost-effectiveness of each program; and

(3) efficient fuel-switching improvement activities, including an analysis regarding how each program meets the criteria specified in subdivision 8, and an assessment of the cost-effectiveness of each program. For improvements requiring the deployment of electric technologies, the plan must also provide an analysis regarding how the fuel-switching improvement will be operated in order to facilitate the integration of variable renewable energy into the electric system.

(c) When evaluating the cost-effectiveness of utility programs, the consumer-owned utility and the commissioner must consider the costs and benefits to ratepayers, the utility, participants, and society. In addition, the commissioner must consider the rate at which the consumer-owned utility is increasing its energy savings and expenditures on energy conservation, as well as the lifetime energy savings and cumulative energy savings of the consumer-owned utility.

(d) Each consumer-owned utility subject to this subdivision may annually spend and invest up to ten percent of the total amount spent and invested on energy conservation improvements under this subdivision on research and development projects that meet the definition of energy conservation improvement and that are funded directly by the consumer-owned utility.

(e) A generation and transmission cooperative electric association or municipal power agency that provides energy services to consumer-owned utilities may invest in energy conservation improvements on behalf of consumer-owned utilities it serves and may fulfill the conservation, reporting, and energy-savings goals for any of those consumer-owned utilities on an aggregate basis. For consumer-owned utilities electing to aggregate services under this paragraph, multiyear plans up to three years may be filed with the department under subdivision 3 activities with continued annual performance reporting.

(f) A consumer-owned utility must not spend for or invest in energy conservation improvements that directly benefit a large energy facility or a large electric customer facility for which the commissioner has issued an exemption under section 216B.241, subdivision 1a.

(g) The energy conservation and optimization plan of each consumer-owned utility subject to this section must have a component focused on improving the energy efficiency in the public schools served by the utility. At a minimum, the efficiency in schools component must consist of programs to update lighting in the school, update the heating and cooling systems of the school, provide for building recommissioning, provide building operator training, and provide opportunities to educate students, teachers, and staff regarding energy efficiency measures implemented at that school, including associated benefits for improved learning resulting from the measures.

Subd. 5. **Low-income programs.** (a) Each consumer-owned utility subject to this section must provide low-income energy conservation programs. The commissioner must provide an evaluation of a utility's plans under this section, considering the utility's historic spending and participation levels, energy savings for low-income programs, and the number of low-income persons residing in the utility's service territory. A municipal utility that furnishes gas service must spend at least 0.4 percent of its most recent three-year average gross operating revenue from residential customers in Minnesota on low-income programs. A consumer-owned utility that furnishes electric service must spend at least 0.4 percent of its gross operating revenue from residential customers in Minnesota on low-income programs. This requirement applies to each generation and transmission cooperative association's members' aggregate gross operating revenue from the sale of electricity to residential customers in Minnesota.

(b) To meet the requirements of paragraph (a), a consumer-owned utility may contribute money to the energy and conservation account in section 216B.241, subdivision 2a. An energy conservation improvement plan must state the amount, if any, of low-income energy conservation improvement funds the utility plans to contribute to the energy and conservation account. Contributions must be remitted to the commissioner by February 1 each year.

(c) The commissioner must establish low-income programs to use money contributed to the energy and conservation account under paragraph (b). When establishing low-income programs, the commissioner must consult political subdivisions, utilities, and nonprofit and community organizations, including organizations engaged in providing energy and weatherization assistance to low-income persons. Money contributed to the energy and conservation account under paragraph (b) must provide programs for low-income persons, including low-income renters, located in the service territory of the utility or association providing the money. The commissioner must record and report expenditures and energy savings achieved as a result of low-income programs funded through the energy and conservation account in the report required under section 216B.241, subdivision 1c, paragraph (g). The commissioner may contract with a political subdivision, nonprofit or community organization, public utility, municipality, or cooperative electric association to implement low-income programs funded through the energy and conservation account.

(d) A consumer-owned utility may petition the commissioner to modify its required spending under this subdivision if the utility and the commissioner were unable to expend the amount required for three consecutive years.

Subd. 6. **Recovery of expenses.** The commission must allow a cooperative electric association subject to rate regulation under section 216B.026 to recover expenses resulting from (1) a plan under this subdivision, and (2) assessments and contributions to the energy and conservation account under section 216B.241, subdivision 2a.

Subd. 7. **Ownership of energy conservation improvement.** An energy conservation improvement to or installed in a building under this section, except systems owned by the consumer-owned utility and designed to turn off, limit, or vary the delivery of energy, is the exclusive property of the building owner, except to the extent that the improvement is subject to a security interest in favor of the utility in case of a loan to the building owner. The utility has no liability for loss, damage, or injury caused directly or indirectly by an energy conservation improvement, except for negligence by the utility in purchase, installation, or modification of the product.

Subd. 8. **Criteria for efficient fuel-switching improvements.** A fuel-switching improvement is deemed efficient if the improvement, relative to the fuel that is being displaced:

(1) results in a net reduction in the cost and amount of source energy consumed for a particular use, measured on a fuel-neutral basis;

(2) results in a net reduction of statewide greenhouse gas emissions, as defined in section 216H.01, subdivision 2, over the lifetime of the improvement. For an efficient electrification or conversion improvement installed by an electric utility, the reduction in emissions must be measured based on the emissions profile of the utility or the utility's wholesale provider. Where applicable, the emissions profile used must be the most recent resource plan accepted by the commission under section 216B.2422;

(3) is cost-effective from a societal perspective, considering the costs associated with both the fuel used in the past and the fuel used in the future; and

(4) is planned to be installed and operated in a manner that does not unduly increase the utility's system peak demand or require significant new investment in utility infrastructure.

Subd. 9. **Manner of filing and service.** (a) A consumer-owned utility must submit the filings required by this section to the department using the department's electronic filing system.

(b) The submission of a document to the department's electronic filing system constitutes service on the department. If a department rule requires service of a notice, order, or other document by the department, utility, or interested party upon persons on a service list maintained by the department, service may be made by personal delivery, mail, or electronic service, except that electronic service may only be made to persons on the service list that have previously agreed in writing to accept electronic service at an electronic address provided to the department for electronic service purposes.

Subd. 10. **Assessment.** The commission or department may assess utilities subject to this section to carry out the purposes of section 216B.241, subdivisions 1d, 1e, and 1f. An assessment under this paragraph must be proportionate to the utility's respective gross operating revenue from sales of gas or electric service in Minnesota during the previous calendar year. Assessments under this subdivision are not subject to the cap on assessments under section 216B.62 or any other law.

Subd. 11. **Waste heat recovery; thermal energy distribution.** Subject to department approval, demand-side natural gas or electric energy displaced by use of waste heat recovered and used as thermal energy, including the recovered thermal energy from a cogeneration or combined heat and power facility, is eligible to be counted toward a consumer-owned utility's natural gas or electric savings goals.

Sec. 6. Minnesota Statutes 2018, section 216B.241, subdivision 1a, is amended to read:

Subd. 1a. ~~**Investment, expenditure, and contribution; public utility**~~ **Large customer facility.** ~~(a) For purposes of this subdivision and subdivision 2, "public utility" has the meaning given it in section 216B.02, subdivision 4. Each public utility shall spend and invest for energy conservation improvements under this subdivision and subdivision 2 the following amounts:~~

~~(1) for a utility that furnishes gas service, 0.5 percent of its gross operating revenues from service provided in the state;~~

~~(2) for a utility that furnishes electric service, 1.5 percent of its gross operating revenues from service provided in the state; and~~

~~(3) for a utility that furnishes electric service and that operates a nuclear-powered electric generating plant within the state, two percent of its gross operating revenues from service provided in the state.~~

~~For purposes of this paragraph (a), "gross operating revenues" do not include revenues from large customer facilities exempted under paragraph (b), or from commercial gas customers that are exempted under paragraph (c) or (e).~~

~~(b)~~ (a) The owner of a large customer facility may petition the commissioner to exempt both electric and gas utilities serving the large customer facility from the investment and expenditure requirements of ~~paragraph (a)~~ a utility's plan under this section or section 216B.2403 with respect to retail revenues attributable to the large customer facility. The filing must include a discussion of the competitive or economic pressures facing the owner of the facility and the efforts taken by the owner to identify, evaluate, and implement energy conservation and efficiency improvements. A filing submitted on or before October 1 of

any year must be approved within 90 days and become effective January 1 of the year following the filing, unless the commissioner finds that the owner of the large customer facility has failed to take reasonable measures to identify, evaluate, and implement energy conservation and efficiency improvements. If a facility qualifies as a large customer facility solely due to its peak electrical demand or annual natural gas usage, the exemption may be limited to the qualifying utility if the commissioner finds that the owner of the large customer facility has failed to take reasonable measures to identify, evaluate, and implement energy conservation and efficiency improvements with respect to the nonqualifying utility. Once an exemption is approved, the commissioner may request the owner of a large customer facility to submit, not more often than once every five years, a report demonstrating the large customer facility's ongoing commitment to energy conservation and efficiency improvement after the exemption filing. The commissioner may request such reports for up to ten years after the effective date of the exemption, unless the majority ownership of the large customer facility changes, in which case the commissioner may request additional reports for up to ten years after the change in ownership occurs. The commissioner may, within 180 days of receiving a report submitted under this paragraph, rescind any exemption granted under this paragraph upon a determination that the large customer facility is not continuing to make reasonable efforts to identify, evaluate, and implement energy conservation improvements. A large customer facility that is, under an order from the commissioner, exempt from the investment and expenditure requirements of paragraph (a) as of December 31, 2010, is not required to submit a report to retain its exempt status, except as otherwise provided in this paragraph with respect to ownership changes. No exempt large customer facility may participate in a utility conservation improvement program unless the owner of the facility submits a filing with the commissioner to withdraw its exemption.

~~(c)~~ (b) A commercial gas customer that is not a large customer facility and that purchases or acquires natural gas from a public utility having fewer than 600,000 natural gas customers in Minnesota may petition the commissioner to exempt gas utilities serving the commercial gas customer from the investment and expenditure requirements of ~~paragraph (a)~~ a utility's plan under this section or section 216B.2403 with respect to retail revenues attributable to the commercial gas customer. The petition must be supported by evidence demonstrating that the commercial gas customer has acquired or can reasonably acquire the capability to bypass use of the utility's gas distribution system by obtaining natural gas directly from a supplier not regulated by the commission. The commissioner shall grant the exemption if the commissioner finds that the petitioner has made the demonstration required by this paragraph.

~~(d)~~ (c) The commissioner may require investments or spending greater than the amounts required under this subdivision for a public utility whose most recent advance forecast required under section 216B.2422 or 216C.17 projects a peak demand deficit of 100 megawatts or greater within five years under midrange forecast assumptions.

~~(e)~~ (d) A public utility or owner of a large customer facility may appeal a decision of the commissioner under paragraph (a) or (b)~~, (c), or (d)~~ to the commission under subdivision 2. In reviewing a decision of the commissioner under paragraph (a) or (b), ~~(c), or (d),~~ the commission shall rescind the decision if it finds ~~that the required investments or spending will:~~

~~(1) not result in cost-effective energy conservation improvements; or~~

~~(2) otherwise~~ the decision is not ~~be~~ in the public interest.

(e) A public utility is prohibited from spending for or investing in energy conservation improvements that directly benefit a large energy facility or a large electric customer facility for which the commissioner has issued an exemption under this section.

Sec. 7. Minnesota Statutes 2018, section 216B.241, subdivision 1c, is amended to read:

Subd. 1c. **Public utility; energy-saving goals.** (a) The commissioner shall establish energy-saving goals for energy conservation improvement expenditures and shall evaluate an energy conservation improvement program on how well it meets the goals set.

(b) Each individual public utility ~~and association shall have~~ providing electric service has an annual energy-savings goal equivalent to ~~1.5~~ 1.75 percent of gross annual retail energy sales ~~unless~~ Each individual public utility providing natural gas service has an annual energy savings goal equivalent to one percent of gross annual retail energy sales. The level of the savings goal may be modified by the commissioner under paragraph ~~(d)~~ (c). The savings goals must be calculated based on the most recent three-year weather-normalized average. A public utility ~~or association~~ providing electric service may elect to carry forward energy savings in excess of ~~1.5~~ 1.75 percent for a year to the succeeding three calendar years~~, except that savings from electric utility infrastructure projects allowed under paragraph (d) may be carried forward for five years~~. A public utility providing natural gas service may elect to carry forward energy savings in excess of one percent for a year to the succeeding three calendar years. A particular energy savings can be used only for one year's goal.

~~(c) The commissioner must adopt a filing schedule that is designed to have all utilities and associations operating under an energy savings plan by calendar year 2010.~~

~~(d)~~ (c) In its energy conservation ~~improvement~~ and optimization plan filing, a public utility ~~or association~~ may request the commissioner to adjust its annual energy-savings percentage goal based on its historical conservation investment experience, customer class makeup, load growth, a conservation potential study, or other factors the commissioner determines warrants an adjustment. The commissioner may not approve a plan of a public utility that provides for an annual energy-savings goal of less than one percent of gross annual retail energy sales from energy conservation improvements.

(d) A public utility ~~or association~~ may include in its energy conservation and optimization plan energy savings from electric utility infrastructure projects approved by the commission under section 216B.1636 or waste heat recovery converted into electricity projects that may count as energy savings in addition to a minimum energy-savings goal of at least one percent for energy conservation improvements. ~~Energy savings from electric utility infrastructure projects, as defined in section 216B.1636, may be included in the energy conservation plan of a municipal utility or cooperative electric association.~~ Electric utility infrastructure projects must result in increased energy efficiency greater than that which would have occurred through normal maintenance activity.

~~(e) An energy savings goal is not satisfied by attaining the revenue expenditure requirements of subdivisions 1a and 1b, but can only be satisfied by meeting the energy savings goal established in this subdivision.~~

~~(f) An association or~~ (e) A public utility is not required to make energy conservation investments to attain the energy-savings goals of this subdivision that are not cost-effective even if the investment is necessary to attain the energy-savings goals. For the purpose of this paragraph, in determining cost-effectiveness, the commissioner shall consider the costs and benefits to ratepayers, the utility, participants, and society. In addition, the commissioner shall consider the rate at which ~~an association or~~ municipal utility is increasing its energy savings and its expenditures on energy conservation, as well as the lifetime energy savings and cumulative energy savings of the public utility.

~~(g)~~ (f) On an annual basis, the commissioner shall produce and make publicly available a report on the annual energy and capacity savings and estimated carbon dioxide reductions achieved by the ~~energy conservation improvement~~ programs under this section and section 216B.2403 for the two most recent years for which data is available. The report must also include information regarding any annual energy sales or generation capacity increases resulting from any efficient fuel-switching improvements. The commissioner shall report on program performance both in the aggregate and for each entity filing an energy conservation improvement plan for approval or review by the commissioner, and must provide an estimate for progress toward the statewide energy savings goal under section 216B.2401.

~~(h) By January 15, 2010, the commissioner shall report to the legislature whether the spending requirements under subdivisions 1a and 1b are necessary to achieve the energy savings goals established in this subdivision.~~

~~(i) This subdivision does not apply to:~~

~~(1) a cooperative electric association with fewer than 5,000 members;~~

~~(2) a municipal utility with fewer than 1,000 retail electric customers; or~~

~~(3) a municipal utility with less than 1,000,000,000 cubic feet in annual throughput sales to retail natural gas customers.~~

Sec. 8. Minnesota Statutes 2018, section 216B.241, subdivision 1d, is amended to read:

Subd. 1d. **Technical assistance.** (a) The commissioner shall evaluate energy conservation improvement programs under this section and section 216B.2403 on the basis of cost-effectiveness and the reliability of the technologies employed. The commissioner shall, by order, establish, maintain, and update energy-savings assumptions that must be used when filing energy conservation improvement programs. The department must track a public utility's or consumer-owned utility's lifetime energy savings and cumulative lifetime energy savings provided to the commissioner in plans submitted under this section. The commissioner shall establish an inventory of the most effective energy conservation programs, techniques, and technologies, and encourage all Minnesota utilities to implement them, where appropriate, in their service territories. The commissioner shall describe these programs in sufficient detail to provide a utility reasonable guidance concerning implementation. The commissioner shall prioritize the opportunities in order of potential energy savings and in order of cost-effectiveness. The commissioner may contract with a third party to carry out any of the commissioner's duties under this subdivision, and to obtain technical assistance to evaluate the effectiveness of any conservation improvement program. The commissioner may assess up to $850,000 annually for the purposes of this subdivision. The assessments must be deposited in the state treasury and credited to the energy and conservation account created under subdivision 2a. An assessment made under this subdivision is not subject to the cap on assessments provided by section 216B.62, or any other law.

(b) ~~Of the assessment authorized under paragraph (a), the commissioner may expend up to $400,000 annually for the purpose of developing, operating, maintaining, and providing technical support for a uniform electronic data reporting and tracking system available to all utilities subject to this section, in order to enable accurate measurement of the cost and energy savings of the energy conservation improvements required by this section. This paragraph expires June 30, 2018.~~ By March 15 of the year following the enactment of this section, the commissioner must, by order, develop and publish technical information necessary to evaluate whether deployment of a fuel-switching improvement meets the criteria established under subdivision 11, paragraph (c), and section 216B.2403, subdivision 8, including the formula to account for the energy saved by a fuel-switching improvement on a fuel-neutral basis. The commissioner must update the technical information as necessary.

Sec. 9. Minnesota Statutes 2018, section 216B.241, subdivision 1f, is amended to read:

Subd. 1f. **Facilities energy efficiency.** (a) The commissioner of administration and the commissioner of commerce shall maintain and, as needed, revise the sustainable building design guidelines developed under section 16B.325.

(b) The commissioner of administration and the commissioner of commerce shall maintain and update the benchmarking tool developed under Laws 2001, chapter 212, article 1, section 3, so that all public buildings can use the benchmarking tool to maintain energy use information for the purposes of establishing energy efficiency benchmarks, tracking building performance, and measuring the results of energy efficiency and conservation improvements.

~~(c) The commissioner shall require that utilities include in their conservation improvement plans programs that facilitate professional engineering verification to qualify a building as Energy Star-labeled, Leadership in Energy and Environmental Design (LEED) certified, or Green Globes certified. The state goal is to achieve certification of 1,000 commercial buildings as Energy Star-labeled, and 100 commercial buildings as LEED-certified or Green Globes certified by December 31, 2010.~~

~~(d)~~ (c) The commissioner may assess up to $500,000 annually for the purposes of this subdivision. The assessments must be deposited in the state treasury and credited to the energy and conservation account created under subdivision 2a. An assessment made under this subdivision is not subject to the cap on assessments provided by section 216B.62, or any other law.

Sec. 10. Minnesota Statutes 2018, section 216B.241, subdivision 2, is amended to read:

Subd. 2. **~~Programs~~ Public utility; energy conservation and optimization plans.** (a) The commissioner may require public utilities to make investments and expenditures in energy conservation improvements, explicitly setting forth the interest rates, prices, and terms under which the improvements must be offered to the customers. The required programs must cover no more than a three-year period. Public utilities shall file energy conservation ~~improvement~~ and optimization plans by June 1, on a schedule determined by order of the commissioner, but at least every three years. As provided in subdivision 11, plans may include programs for efficient fuel-switching improvements and load management. An individual utility program may combine elements of energy conservation, load management, or efficient fuel-switching. Plans received by a public utility by June 1 must be approved or approved as modified by the commissioner by December 1 of that same year. The plan must account for the lifetime energy savings and cumulative lifetime savings under the plan. The commissioner shall evaluate the program on the basis of cost-effectiveness and the reliability of technologies employed. The commissioner's order must provide to the extent practicable for a free choice, by consumers participating in the program, of the device, method, material, or project constituting the energy conservation improvement and for a free choice of the seller, installer, or contractor of the energy conservation improvement, provided that the device, method, material, or project seller, installer, or contractor is duly licensed, certified, approved, or qualified, including under the residential conservation services program, where applicable.

(b) The commissioner may require a utility subject to subdivision 1c to make an energy conservation improvement investment or expenditure whenever the commissioner finds that the improvement will result in energy savings at a total cost to the utility less than the cost to the utility to produce or purchase an equivalent amount of new supply of energy. ~~The commissioner shall nevertheless ensure that every public utility operate one or more programs under periodic review by the department.~~

(c) Each public utility subject to this subdivision ~~1a~~ may spend and invest annually up to ten percent of the total amount ~~required to be~~ spent and invested on energy conservation improvements under this section by the utility on research and development projects that meet the definition of energy conservation improvement in subdivision 1 and that are funded directly by the public utility.

(d) ~~A public utility may not spend for or invest in energy conservation improvements that directly benefit a large energy facility or a large electric customer facility for which the commissioner has issued an exemption pursuant to subdivision 1a, paragraph (b).~~ The

commissioner shall consider and may require a public utility to undertake a program suggested by an outside source, including a political subdivision, a nonprofit corporation, or community organization.

(e) A utility, a political subdivision, or a nonprofit or community organization that has suggested a program, the attorney general acting on behalf of consumers and small business interests, or a utility customer that has suggested a program and is not represented by the attorney general under section 8.33 may petition the commission to modify or revoke a department decision under this section, and the commission may do so if it determines that the program is not cost-effective, does not adequately address the residential conservation improvement needs of low-income persons, has a long-range negative effect on one or more classes of customers, or is otherwise not in the public interest. The commission shall reject a petition that, on its face, fails to make a reasonable argument that a program is not in the public interest.

(f) The commissioner may order a public utility to include, with the filing of the utility's annual status report, the results of an independent audit of the utility's conservation improvement programs and expenditures performed by the department or an auditor with experience in the provision of energy conservation and energy efficiency services approved by the commissioner and chosen by the utility. The audit must specify the energy savings or increased efficiency in the use of energy within the service territory of the utility that is the result of the spending and investments. The audit must evaluate the cost-effectiveness of the utility's conservation programs.

~~(g) A gas utility may not spend for or invest in energy conservation improvements that directly benefit a large customer facility or commercial gas customer facility for which the commissioner has issued an exemption pursuant to subdivision 1a, paragraph (b), (c), or (e). The commissioner shall consider and may require a utility to undertake a program suggested by an outside source, including a political subdivision, a nonprofit corporation, or a community organization.~~

(g) The energy conservation and optimization plan for each public utility subject to this section must include a component focused on improving energy efficiency in public schools served by the utility. At a minimum, the efficiency in schools component must consist of programs to update lighting in schools, update heating and cooling systems in schools, provide for building recommissioning, provide building operator training, and provide opportunities to educate students, teachers, and staff regarding energy efficiency measures implemented at the school, including the associated benefits for improved learning resulting from the measures.

Sec. 11. Minnesota Statutes 2018, section 216B.241, subdivision 2b, is amended to read:

Subd. 2b. **Recovery of expenses.** The commission shall allow a public utility to recover expenses resulting from ~~a~~ an energy conservation ~~improvement program required~~ and optimization plan approved by the department under this section and contributions and assessments to the energy and conservation account, unless the recovery would be inconsistent with a financial incentive proposal approved by the commission. ~~The commission shall allow a cooperative electric association subject to rate regulation under section 216B.026, to recover expenses resulting from energy conservation improvement programs, load management programs, and assessments and contributions to the energy and conservation account unless the recovery would be inconsistent with a financial incentive proposal approved by the commission.~~ In addition, a public utility may file annually, or the Public Utilities Commission may require the utility to file, and the commission may approve, rate schedules containing provisions for the automatic adjustment of charges for utility service in direct relation to changes in the expenses of the utility for real and personal property taxes, fees, and permits, the amounts of which the utility cannot control. A public utility is eligible to file for adjustment for real and personal property taxes, fees, and permits under this subdivision only if, in the year previous to the year in which it files for adjustment, it has spent or invested at least 1.75 percent of its gross revenues from provision of electric service, excluding gross operating revenues from electric service provided in the state to large electric customer facilities for which the commissioner has issued an exemption under subdivision 1a, paragraph (b), and 0.6 percent of its gross revenues from provision of gas service, excluding gross operating revenues from gas services provided in the state to large electric customer facilities for which the commissioner has issued an exemption under subdivision 1a, paragraph (b), for that year for energy conservation improvements under this section.

Sec. 12. Minnesota Statutes 2018, section 216B.241, subdivision 7, is amended to read:

Subd. 7. **Low-income programs.** (a) The commissioner shall ensure that each public utility ~~and association~~ subject to subdivision 1c provides low-income programs. When approving spending and energy-savings goals for low-income programs, the commissioner shall consider historic spending and participation levels, energy savings for low-income programs, and the number of low-income persons residing in the utility's service territory.

A ~~municipal utility that furnishes gas service must spend at least 0.2 percent, and a~~ public utility furnishing gas service must spend at least ~~0.4~~ 0.8 percent, of its most recent three-year average gross operating revenue from residential customers in the state on low-income programs. A utility or association that furnishes electric service must spend at least ~~0.1~~ 0.4 percent of its gross operating revenue from residential customers in the state on low-income programs. ~~For a generation and transmission cooperative association, this requirement shall apply to each association's members' aggregate gross operating revenue from sale of electricity to residential customers in the state. Beginning in 2010, A utility or association that furnishes electric service must spend 0.2 percent of its gross operating revenue from residential customers in the state on low-income programs.~~

(b) To meet the requirements of paragraph (a), a public utility ~~or association~~ may contribute money to the energy and conservation account. An energy conservation improvement plan must state the amount, if any, of low-income energy conservation improvement funds the public utility ~~or association~~ will contribute to the energy and conservation account. Contributions must be remitted to the commissioner by February 1 of each year.

(c) The commissioner shall establish low-income programs to utilize money contributed to the energy and conservation account under paragraph (b). In establishing low-income programs, the commissioner shall consult political subdivisions, utilities, and nonprofit and community organizations, especially organizations engaged in providing energy and weatherization assistance to low-income persons. Money contributed to the energy and conservation account under paragraph (b) must provide programs for low-income persons, including low-income renters, in the service territory of the public utility ~~or association~~ providing the money. The commissioner shall record and report expenditures and energy savings achieved as a result of low-income programs funded through the energy and conservation account in the report required under subdivision 1c, paragraph (g). The commissioner may contract with a political subdivision, nonprofit or community organization, public utility, municipality, or cooperative electric association to implement low-income programs funded through the energy and conservation account.

(d) A public utility ~~or association~~ may petition the commissioner to modify its required spending under paragraph (a) if the utility or association and the commissioner have been unable to expend the amount required under paragraph (a) for three consecutive years.

(e) The costs and benefits associated with any approved low-income gas or electric conservation improvement program that is not cost-effective when considering the costs and benefits to the utility may, at the discretion of the utility, be excluded from the calculation of net economic benefits for purposes of calculating the financial incentive to the utility. The energy and demand savings may, at the discretion of the utility, be applied toward the calculation of overall portfolio energy and demand savings for purposes of determining progress toward annual goals and in the financial incentive mechanism.

Sec. 13. Minnesota Statutes 2018, section 216B.241, is amended by adding a subdivision to read:

Subd. 11. **Programs for efficient fuel-switching improvements and load management.** (a) A public utility subject to this section may include in its plan required under subdivision 2 programs for efficient fuel-switching improvements and load management, or combinations of energy conservation improvements, fuel-switching improvements, and load management. For each program, the utility must provide proposed budgets, cost-effectiveness analyses, and estimated net energy and demand savings.

(b) The department may approve proposed programs for efficient fuel-switching improvements if it finds the improvements meet the requirements of paragraph (c). For improvements requiring the deployment of electric technologies, the department must also consider whether the fuel-switching improvement can be operated in a manner that facilitates the integration of variable renewable energy into the electric system. The net benefits from an efficient fuel-switching improvement that is integrated with an energy efficiency program approved under this section may be counted toward the net benefits of the energy efficiency program, provided the department finds the primary purpose and effect of the program is energy efficiency.

(c) The department may approve a proposed program in load management if it finds the program investment is cost-effective after considering the costs and benefits of the proposed investment to ratepayers, the utility, participants, and society. The net benefits from a load management activity that is integrated with an energy efficiency program approved under this section may be counted toward the net benefits of the energy efficiency program, provided the department finds the primary purpose and effect of the program is energy efficiency.

(d) The commission may permit a public utility to file rate schedules that provide for annual cost recovery for efficient fuel-switching improvements and cost-effective load management programs approved by the department, including reasonable and prudent costs of implementing and promoting programs approved under this subdivision. The commission

may approve, modify, or reject a proposal made by the department or a utility for an incentive plan to encourage investments in load management programs, applying the considerations established under section 216B.16, subdivision 6c, paragraphs (b) and (c). An incentive plan to encourage cost-effective load management programs may be structured as a regulatory asset on which a public utility could earn a rate of return. A utility is not eligible for a financial incentive under this subdivision in any year the utility or association did not achieve its minimum energy savings goal.

(e) A fuel-switching improvement is deemed efficient if the commissioner finds the improvement, relative to the fuel that is being displaced, meets the following criteria:

(1) results in a net reduction in the cost and amount of source energy consumed for a particular use, measured on a fuel-neutral basis;

(2) results in a net reduction of statewide greenhouse gas emissions as defined in section 216H.01, subdivision 2. For an efficient fuel-switching improvement affecting a customer's use of electricity, the change in emissions must be measured based on the hourly emission profile of the electric utility that controls the system where the electric technology is installed, using the most recent resource plan approved by the commission under section 216B.2422;

(3) is cost-effective from a societal perspective, considering the costs associated with both the fuel that was used and the fuel that will be used; and

(4) is installed and operated in a manner that does not unduly increase the utility's system peak demand or require significant new investment in utility infrastructure.

Sec. 14. **REPEALER.**

Minnesota Statutes 2018, section 216B.241, subdivisions 1, 2c, 4, and 5, are repealed.

APPENDIX

Repealed Minnesota Statutes: 19-3563

216B.241 ENERGY CONSERVATION IMPROVEMENT.

Subdivision 1. **Definitions.** For purposes of this section and section 216B.16, subdivision 6b, the terms defined in this subdivision have the meanings given them.

(a) "Commission" means the Public Utilities Commission.

(b) "Commissioner" means the commissioner of commerce.

(c) "Department" means the Department of Commerce.

(d) "Energy conservation" means demand-side management of energy supplies resulting in a net reduction in energy use. Load management that reduces overall energy use is energy conservation.

(e) "Energy conservation improvement" means a project that results in energy efficiency or energy conservation. Energy conservation improvement may include waste heat that is recovered and converted into electricity, but does not include electric utility infrastructure projects approved by the commission under section 216B.1636. Energy conservation improvement also includes waste heat recovered and used as thermal energy.

(f) "Energy efficiency" means measures or programs, including energy conservation measures or programs, that target consumer behavior, equipment, processes, or devices designed to produce either an absolute decrease in consumption of electric energy or natural gas or a decrease in consumption of electric energy or natural gas on a per unit of production basis without a reduction in the quality or level of service provided to the energy consumer.

(g) "Gross annual retail energy sales" means annual electric sales to all retail customers in a utility's or association's Minnesota service territory or natural gas throughput to all retail customers, including natural gas transportation customers, on a utility's distribution system in Minnesota. For purposes of this section, gross annual retail energy sales exclude:

(1) gas sales to:

(i) a large energy facility;

(ii) a large customer facility whose natural gas utility has been exempted by the commissioner under subdivision 1a, paragraph (b), with respect to natural gas sales made to the large customer facility; and

(iii) a commercial gas customer facility whose natural gas utility has been exempted by the commissioner under subdivision 1a, paragraph (c), with respect to natural gas sales made to the commercial gas customer facility; and

(2) electric sales to a large customer facility whose electric utility has been exempted by the commissioner under subdivision 1a, paragraph (b), with respect to electric sales made to the large customer facility.

(h) "Investments and expenses of a public utility" includes the investments and expenses incurred by a public utility in connection with an energy conservation improvement, including but not limited to:

(1) the differential in interest cost between the market rate and the rate charged on a no-interest or below-market interest loan made by a public utility to a customer for the purchase or installation of an energy conservation improvement;

(2) the difference between the utility's cost of purchase or installation of energy conservation improvements and any price charged by a public utility to a customer for such improvements.

(i) "Large customer facility" means all buildings, structures, equipment, and installations at a single site that collectively (1) impose a peak electrical demand on an electric utility's system of not less than 20,000 kilowatts, measured in the same way as the utility that serves the customer facility measures electrical demand for billing purposes or (2) consume not less than 500 million cubic feet of

natural gas annually. In calculating peak electrical demand, a large customer facility may include demand offset by on-site cogeneration facilities and, if engaged in mineral extraction, may aggregate peak energy demand from the large customer facility's mining and processing operations.

(j) "Large energy facility" has the meaning given it in section 216B.2421, subdivision 2, clause (1).

(k) "Load management" means an activity, service, or technology to change the timing or the efficiency of a customer's use of energy that allows a utility or a customer to respond to wholesale market fluctuations or to reduce peak demand for energy or capacity.

(l) "Low-income programs" means energy conservation improvement programs that directly serve the needs of low-income persons, including low-income renters.

(m) "Qualifying utility" means a utility that supplies the energy to a customer that enables the customer to qualify as a large customer facility.

(n) "Waste heat recovered and used as thermal energy" means capturing heat energy that would otherwise be exhausted or dissipated to the environment from machinery, buildings, or industrial processes and productively using such recovered thermal energy where it was captured or distributing it as thermal energy to other locations where it is used to reduce demand-side consumption of natural gas, electric energy, or both.

(o) "Waste heat recovery converted into electricity" means an energy recovery process that converts otherwise lost energy from the heat of exhaust stacks or pipes used for engines or manufacturing or industrial processes, or the reduction of high pressure in water or gas pipelines.

Subd. 2c. **Performance incentives.** By December 31, 2008, the commission shall review any incentive plan for energy conservation improvement it has approved under section 216B.16, subdivision 6c, and adjust the utility performance incentives to recognize making progress toward and meeting the energy-savings goals established in subdivision 1c.

Subd. 4. **Federal law prohibitions.** If investments by public utilities in energy conservation improvements are in any manner prohibited or restricted by federal law and there is a provision under which the prohibition or restriction may be waived, then the commission, the governor, or any other necessary state agency or officer shall take all necessary and appropriate steps to secure a waiver with respect to those public utility investments in energy conservation improvements included in this section.

Subd. 5. **Efficient lighting program.** (a) Each public utility, cooperative electric association, and municipal utility that provides electric service to retail customers and is subject to subdivision 1c shall include as part of its conservation improvement activities a program to strongly encourage the use of fluorescent and high-intensity discharge lamps. The program must include at least a public information campaign to encourage use of the lamps and proper management of spent lamps by all customer classifications.

(b) A public utility that provides electric service at retail to 200,000 or more customers shall establish, either directly or through contracts with other persons, including lamp manufacturers, distributors, wholesalers, and retailers and local government units, a system to collect for delivery to a reclamation or recycling facility spent fluorescent and high-intensity discharge lamps from households and from small businesses as defined in section 645.445 that generate an average of fewer than ten spent lamps per year.

(c) A collection system must include establishing reasonably convenient locations for collecting spent lamps from households and financial incentives sufficient to encourage spent lamp generators to take the lamps to the collection locations. Financial incentives may include coupons for purchase of new fluorescent or high-intensity discharge lamps, a cash back system, or any other financial incentive or group of incentives designed to collect the maximum number of spent lamps from households and small businesses that is reasonably feasible.

(d) A public utility that provides electric service at retail to fewer than 200,000 customers, a cooperative electric association, or a municipal utility that provides electric service at retail to customers may establish a collection system under paragraphs (b) and (c) as part of conservation improvement activities required under this section.

(e) The commissioner of the Pollution Control Agency may not, unless clearly required by federal law, require a public utility, cooperative electric association, or municipality that establishes a household fluorescent and high-intensity discharge lamp collection system under this section to manage the lamps as hazardous waste as long as the lamps are managed to avoid breakage and are delivered to a recycling or reclamation facility that removes mercury and other toxic materials contained in the lamps prior to placement of the lamps in solid waste.

(f) If a public utility, cooperative electric association, or municipal utility contracts with a local government unit to provide a collection system under this subdivision, the contract must provide for payment to the local government unit of all the unit's incremental costs of collecting and managing spent lamps.

(g) All the costs incurred by a public utility, cooperative electric association, or municipal utility for promotion and collection of fluorescent and high-intensity discharge lamps under this subdivision are conservation improvement spending under this section.