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PUBLIC SERVICE COMMISSION OF WISCONSIN

Roadmap to Zero Carbon Investigation

5-EI-158

ORDER

This is the Order defining next steps in the Roadmap to Zero Carbon investigation. The Commission directed Commission staff to collect more information on utility resource planning and decisions and to explore incorporating independent, statewide resource planning analysis as part of the next Strategic Energy Assessment (SEA); to conduct a workshop on performance-based regulation, which should include a review of considerations related to affordability; to consider multiple energy efficiency issues raised by commenters as part of the upcoming Quadrennial Planning Process in docket 5-FE-104; and to conduct further analysis on issues related to customer affordability.

Introduction

On March 11, 2021 the Commission issued a Notice of Investigation to consider the ongoing transition to zero-carbon electricity generation. ([PSC REF#: 406664.](#)) The Notice indicated that the investigation would help the Commission gather information to identify approaches to achieve the economic and environmental benefits the transition can provide, while maintaining adequate electric supply, reliability, and affordability for all customers. The Notice also established that the investigation would consider a range of existing initiatives addressing these issues, including but not limited to publicly announced utility goals to reduce carbon dioxide emissions; recommendations from the Wisconsin Energy Distribution and Technology

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Initiative (WEDTI) ([PSC REF#: 406723](#)); recommendations from the Governor's Task Force on Climate Change (GTFCC) ([PSC REF#: 406724](#)); and recommendations from the state Clean Energy Plan developed through Executive Order 38.

On April 2, 2021 the Commission issued for public comment a memorandum summarizing the existing proposals related to the zero-carbon transition identified by published utility plans, WEDTI, and GTFCC, and requesting comments to help set initial priorities for the investigation. The Commission requested that commenters identify between one and three specific issues to be prioritized for attention in the investigation, and requested that commenters identify how they believe the Commission should address the issue, taking into account the Commission's existing jurisdiction and authority. ([PSC REF#: 408370](#).)

The Commission received 48 responses to its request for comment, from 8 utilities and utility representatives, 28 organizations, and 12 individuals. On August 11, 2021 Commission staff provided the Commission with a memorandum summarizing and analyzing submitted comments, and presenting action alternatives for the Commission that are informed by the comments received. ([PSC REF#: 419938](#).) The Commission reviewed the memorandum at its open meeting of September 2, 2021.

Findings of Fact

1. It is reasonable to collect more information on utility resource planning analysis and decisions and to explore incorporating independent statewide resource planning analysis in the next SEA, in order to support a more comprehensive understanding of utility resource decisions and to support greater transparency and engagement for the Commission and stakeholders.

2. It is reasonable to conduct a workshop to facilitate greater understanding and engagement on issues related to performance-based regulation, including regulatory options related to customer affordability.

3. It is reasonable to consider energy efficiency issues raised in this docket as part of the Quadrennial Planning Process in docket 5-FE-104, including: (a) aligning Focus on Energy (Focus) performance goals and program offerings with decarbonization goals; (b) deploying electrification programs and offerings; (c) deploying programs and offerings for low-income customers; (d) considering collaboration between Focus and utility demand response programs; and (e) considering utility voluntary energy efficiency programs.

4. It is reasonable for Commission staff to conduct further analysis on customer affordability, and include affordability as a topic in its workshop on performance-based regulation.

Conclusions of Law

1. The Commission has authority pursuant to Wis. Stat. §§ 196.02, 196.025, 196.12, 196.374, 196.377, 196.491(2), and Wis. Admin. Code § PSC 111.07.

Opinion

In order to align the scope of docket activities with available Commission staff resources, and to support concentrated and timely action, Commission staff sought to identify a limited number of topics for initial consideration. In selecting topics from the larger number of distinct priorities suggested by commenters, Commission staff took into account multiple considerations, including: (1) how frequently commenters named a topic as a priority; (2) the presence of identifiable options for addressing the topic within the Commission's jurisdiction and authority,

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including any options to address the topic in connection with existing Commission work; and (3) the value in addressing the issue upfront, such as for broad-scale topics that could support opportunities to consider additional priorities at a later date. Based on these considerations, the Commission staff memorandum presented five topics for Commission review:

1. Utility resource planning;
2. Performance-based regulation;
3. Pilot programming;
4. Energy efficiency; and
5. Customer affordability.

The Commission takes no action in this docket on pilot programming. The Commission will continue to review and address pilot programs as they are filed in separate dockets. Commission action for each of the other four issues is discussed further below.

Utility Resource Planning

Establishing enhanced and transparent utility resource planning processes was among commenters' most frequently stated priorities. A range of different commenters emphasized the importance of assessing utility resource decisions in order to assess progress on carbon reduction, reliability, affordability, and resource adequacy, and expressed desire for a more transparent view of each utility's comprehensive plans for resource additions, continuations and requirements. Commenters emphasized that clear and thorough planning is especially important given the unusually rapid pace of generation retirements and additions occurring in the coming years. ([PSC REF#: 411392](#), [PSC REF#: 411477](#), [PSC REF#: 411491](#).)

A number of commenters noted that preparation of Integrated Resource Plans (IRP), consistent with those prepared in other states, would meet their standards for effective resource planning. However, several of those commenters acknowledged that IRP processes are typically established through legislative authorization, which has not taken place in Wisconsin. ([PSC REF#: 411450](#), [PSC REF#: 411452](#), [PSC REF#: 411523](#).) Other commenters suggested that the Commission explore resource planning options through the SEA, the Commission's current statutorily authorized platform for statewide review of the electric system. ([PSC REF#: 411392](#), [PSC REF#: 411458](#), [PSC REF#: 411523](#).)

While several commenters noted that their desired resource planning efforts would involve pursuing information collection and analysis beyond that provided in previous biennial SEA reports, the existing SEA framework does offer some flexibility for a modified approach to future reports. Wisconsin Admin. Code § PSC 111.07 authorizes the Commission to request additional information from utilities for the SEA beyond the requirements established in statute and administrative code, a provision the Commission used to request carbon emissions data for review in the most recently completed SEA. ([PSC REF#: 374400](#).) Furthermore, the Commission has historically exercised discretion over whether to incorporate more information and analysis in SEA reports than the baseline requirements in statute and code mandate.

Utility data requests for the next SEA are being issued in Fall 2021. Minimum SEA data collection requirements already include identification of planned generation additions and retirements within the five full years after the SEA's date of publication. The Commission directs Commission staff to collect more information through the SEA on the analysis utilities conducted to inform their addition and retirement decisions, in order to support a more

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comprehensive understanding of the rationale and effects of utilities' planned resource decisions, and to support greater transparency and engagement for the Commission and stakeholders.

Additional information to be collected, which is commonly present in detailed resource plans, shall include:

- A narrative description of the driving factors behind additions and retirements, including an explanation of the rationales for each retirement, and the role of new generation additions, as well as other considerations such as forecasted customer demand, in ensuring the utility meets future capacity and energy needs. This narrative can also explain the influence of utilities' carbon reduction goals on their decisions, and project the impacts of additions and retirements on achievement of their carbon reduction goals.
- Explanations of the analysis procedures used by the utility to determine additions and retirements, including the analytical models used, the rationale for selection of those models, and the methods used to ensure accurate and reliable modeling results.
- A description of the goals and standards used by the utility to set initial parameters for modeling, such as its definition of standards for maintaining system reliability, required reserve margins for resource adequacy, and the application of utility carbon reduction goals.
- Specification of key input assumptions used to model system and market conditions, as well as any alternative assumptions used to conduct sensitivity analysis on the effects of different generation alternatives. This specification can

include a detailed description of how the provider accounts for any existing renewable energy offerings, including but not limited to community solar and renewable energy riders.

- Specification of all generation scenarios considered in analysis.
- A presentation of modeling results that explains how the utility selected the proposed generation scenario reflected in its reported additions and retirements, and how the utility concluded this scenario was superior to other scenarios considered.

The Commission also directs Commission staff to explore incorporating independent, statewide resource planning analysis in the next SEA, in order to provide statewide generation planning analysis that helps the SEA evaluate the impacts of generation changes on Wisconsin's statewide electric system. Independent analysis can also go beyond the analysis associated with announced additions and retirements and assess how the implementation of those generation changes could influence future resource planning decisions.

Commissioner Nowak dissents.

Performance-Based Regulation

Several commenters supported prioritizing performance-based regulation as a general method that encourages better utility outcomes on a range of desired goals, but establishing financial incentives for utility performance on desired outcomes. Multiple commenters expressed their interest in establishing performance-based regulation to encourage increased activity on demand-side activities such as demand response and energy efficiency, a common approach in other states to help offset the financial impacts of reduced energy sales and

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counterbalance the financial incentives to utilities for constructing generation sources.

([PSC REF#: 411405](#), [PSC REF#: 411443](#), [PSC REF#: 411471](#), [PSC REF#: 411491](#).) Some commenters linked their interest in performance-based regulation to support for encouraging the “utility as a conductor” concept established in the WEDTI report. ([PSC REF#: 411458](#), [PSC REF#: 411470](#).) As outlined in WEDTI Recommendation 1, positioning utilities as conductors would charge them with optimizing the benefits of electric system operations for utilities and customers in ways that take account of efficiency and demand response as well as increases in electric vehicle usage, battery storage deployment, and customer-owned generation such as rooftop solar. ([PSC REF#: 406723](#) at 15-17.)

A growing number of states have explored performance-based regulation approaches in recent years. While the details of state initiatives can vary, those initiatives typically focus on two pillars: setting performance metrics, and establishing performance incentive mechanisms that connect performance on the metrics with utilities’ financial outcomes.

The Commission directs Commission staff to conduct a workshop to facilitate further review and discussion on performance-based regulation. The workshop shall address experience with performance-based regulation in other states.

Per the Commission’s decision on customer affordability (below), the workshop shall also include customer affordability as a topic. Commissioner Nowak dissents on inclusion of this topic in the workshop.

Energy Efficiency

Numerous commenters highlighted energy efficiency as a valuable component of carbon reduction efforts. Five distinct suggestions for initiatives to expand, modify, and complement

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the current activities within Focus's statewide energy efficiency programs were raised by commenters and reviewed in Commission staff's memorandum.

First, the most common suggestion was to take further action to align Focus's program offerings and performance metrics with carbon reduction goals. While carbon reductions from Focus activities are already quantified by the program evaluator and incorporated into Focus' cost-effectiveness calculations, program performance goals are based primarily on electricity and natural gas savings and do not currently include quantified emissions goals. ([PSC REF#: 411501.](#)) Some commenters suggested that the Commission should explore setting carbon reduction goals to encourage greater emphasis on designing program offerings to maximize emissions reductions. ([PSC REF#: 411515.](#))

Second, multiple commenters suggested that Focus could increase its emissions reductions impacts through offerings that support electrification of energy technologies that typically rely on carbon-emitting fuels such as natural gas and propane. Several of those commenters specifically suggested that Focus explore options for deploying electric heat pumps in place of gas and propane furnaces. ([PSC REF#: 411392](#), [PSC REF#: 411448](#), [PSC REF#: 411476.](#))

Third, commenters expressed interest in increasing Focus' emphasis on supporting customer equity and affordability, potentially by establishing formal goals and adjustments to program offerings to increase service to customers facing affordability challenges. ([PSC REF#: 411501.](#))

Fourth, one commenter proposed further exploration of the role Focus can play in supporting utility demand response and load management initiatives, noting that those programs

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may benefit from leveraging Focus' program infrastructure and market knowledge to achieve greater impacts and cost-effectiveness. (*Id.*)

Fifth, one commenter proposed exploring whether to provide utilities financial incentives to achieve increased savings through their own voluntary energy efficiency programs, noting that existing efficiency-related performance incentive mechanisms deployed in other states could be reviewed to consider whether and how they could be adapted to Wisconsin's own efficiency program structure. ([PSC REF#: 411443.](#))

Under Wis. Stat. § 196.374(3)(b)1., the Commission's Quadrennial Planning Processes evaluate Focus and utility voluntary programs every four years and "set or revise goals, priorities, or measurable targets" for those programs. The Commission has historically carried out the Quadrennial Planning Process by establishing a scope of issues for Commission staff to review; releasing for public comment a Commission staff memorandum providing analysis and alternatives on each issue in the scope; and making final decisions informed by Commission staff's memorandum and commenter input. Commission staff has started preparing for the Commission to address the scope of the next Quadrennial Planning Process in Fall 2021, in docket 5-FE-104.

All five issues described above address efficiency goals, priorities, and measurable targets, and thereby fall within the scope of the Quadrennial Planning Process. The Commission directs all five issues—aligning Focus performance goals and program offerings with decarbonization goals; deploying electrification programs and offerings; considering programs and offerings for low-income customers; collaborating between Focus and utility demand response programs; and evaluating utility voluntary energy efficiency programs—to be included

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in the scope of the Commission's upcoming Quadrennial Planning Process under docket 5-FE-104.

Customer Affordability

Several commenters stated that the investigation should prioritize addressing the affordability challenges faced by lower-income customers. Some commenters specified their interest in using a range of customer programs and tariffs to expand support for those customers. ([PSC REF#: 411387](#), [PSC REF#: 411469](#), [PSC REF#: 411511](#).) Other commenters emphasized the importance of conducting planning and decision-making through a lens that emphasized customer equity and service to communities facing the greatest affordability challenges. ([PSC REF#: 411453](#), [PSC REF#: 411469](#), [PSC REF#: 411476](#).)

The Commission has taken multiple recent affordability-related actions that provide reference points for further work on affordability-related considerations, including several related to managing customer costs associated with the transition to zero-carbon generation.

- In its Financing Order of November 17, 2020 ([PSC REF#: 400098](#)), the Commission approved Wisconsin Electric Power Company's application use environmental trust bonds to finance environmental costs associated with the retired Pleasant Prairie coal plant, in order to reduce the associated costs to customers by an estimated \$40 million.
- In its Order of June 8, 2021 ([PSC REF#: 413323](#)), the Commission allocated \$500,000 on State Energy Program funds for the Office of Energy Innovation to develop and implement Wisconsin's Inclusive Solar Community Offering, a new program that partners with two Wisconsin electric cooperatives to implement two

community solar installations with rates designed to serve low-to-moderate income households.

- In February 2021 the Commission announced that it would begin requiring investor-owned utilities with at least 15,000 customers to file as part of their annual reports energy burden analyses, which assess the cost of utility bills as a percentage of household income for each county in the utility's service territory. The first set of energy burden analyses were submitted in mid-2021 as part of utilities' 2020 annual reports, and are currently under review by Commission staff.
- The Commission has collected a broad range of affordability-related information in docket 5-UI-120, its ongoing investigation to address safe, reliable, and affordable access to utility services during the COVID-19 pandemic. The Commission has required regular reporting from utilities since early 2020 related to customer arrears, deferred payment agreements and terms, and utilities' plans for communicating with customers, and has recently expanded reporting requirements to address the impacts of the Commission's order requiring utilities to offer a deferred payment agreement to any low-income customer who is unable to pay a bill in full prior to disconnecting service for nonpayment.

The Commission directs Commission staff to conduct further analysis on customer affordability issues in this docket.

Order

1. More information on utility resource planning analysis and decisions consistent with this Order shall be collected as part of the next SEA.

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2. Whether to incorporate independent, statewide resource planning analysis in the next SEA shall be evaluated.

3. A workshop on performance-based regulation, which shall include customer affordability, shall be held.

4. The following issues shall be considered as part of the Quadrennial Planning Process in docket 5-FE-104:

- a. Aligning Focus performance goals and program offerings with decarbonization goals;
- b. Electrification programs and offerings;
- c. Programs and offerings for low-income customers;
- d. Collaboration between Focus and utility demand response programs; and
- e. Utility voluntary programs.

5. Further analysis on customer affordability shall be conducted.

6. This Order shall take effect one day after the date of service.

7. Jurisdiction is retained.

Dated at Madison, Wisconsin, this the 23rd day of September, 2021.

By the Commission:

A handwritten signature in black ink that reads "Steffany Powell Coker". The signature is written in a cursive, flowing style.

Steffany Powell Coker
Secretary to the Commission

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