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Public Service Commission of Wisconsin  
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**PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application of Wisconsin Electric Power Company and Wisconsin Gas LLC for a Certificate of Authority under Wis. Stat. § 196.49 and Wis. Admin. Code § PSC 133.03 to Construct a System of New Liquefied Natural Gas Facilities and Associated Natural Gas Pipelines near Ixonia and Bluff Creek, Wisconsin

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**FINAL DECISION**

On July 2, 2020, pursuant to Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 133, Wisconsin Electric Power Company–Gas Operations (WE-GO) and Wisconsin Gas LLC (WG) (collectively, applicants) filed an application for a Certification of Authority (CA) with the Commission for authority to install and operate liquefied natural gas (LNG) peaking facilities in the Town of La Grange, Walworth County, Wisconsin (Bluff Creek) and in the Town of Ixonia, Jefferson County, Wisconsin (Ixonia) (collectively, Bluff Creek and Ixonia, project, or LNG facilities). ([PSC REF#: 413291](#).) The applicants proposed the project to increase reliability and provide additional natural gas supply and capacity to meet the “peak” demand needs in southeast Wisconsin. The applicants further stated that the project is needed to meet increasing demand for incremental firm deliverability, capacity, and supply of natural gas, primarily for customers located in service territories within southeast Wisconsin—WE-GO’s southeast Lakeshore service area and WG’s southeast greater Milwaukee service area. The estimated cost of Bluff Creek is \$205 million and the estimated cost of Ixonia is \$204 million, resulting in a total estimated cost of \$409 million for the project, including allowance for funds used during construction (AFUDC).

The application is GRANTED subject to conditions.

## Introduction

On November 1, 2019, the applicants filed an application seeking authority to construct the proposed project to meet projected peak-day demand during the coldest days of Wisconsin's winters. On July 2, 2020, the applicants provided updated information for the project's sites that superseded the previous application in its entirety. ([PSC REF#: 393072.](#)) On August 6, 2020, the Commission issued a Notice of Proceeding opening this docket, indicating that the docket was a Class 1 proceeding and a Type II action under Wis. Admin. Code § PSC 4.10(2) for environmental review purposes and required the preparation of an environmental assessment (EA) under Wis. Stat. § 1.11. ([PSC REF#: 394919.](#)) The EA was published on April 29, 2021. ([PSC REF#: 410478.](#))

In addition to the applicants, Wisconsin Industrial Energy Group, Sierra Club, and Griebenow Dairy Farm LLC were identified as parties to the proceeding. ([PSC REF#: 379609;](#) [PSC REF#: 396466;](#) [PSC REF#: 407428.](#)) The parties, for purposes of review under Wis. Stat. §§ 227.47 and 227.53, are listed in Appendix A. A Notice of Prehearing Conference was issued on March 19, 2021. The prehearing conference was held on April 5, 2021, to determine the issues in the case and to establish a schedule for the filing of testimony and dates of hearing. ([PSC REF#: 409330.](#)) The Notice of Hearing was issued on July 8, 2021, starting the 180-day statutory time period for completing the review of the case. Audiovisual hearings were held in July 2021, with a technical hearing on July 26, 2021, and a public hearing session on July 28, 2021. ([PSC REF#: 415548.](#)) At the technical hearing, expert witnesses offered testimony on behalf of: the applicants, Sierra Club, Wisconsin Department of Natural Resources (DNR), and Commission staff. At the public comment hearings, the Commission accepted both oral and

written testimony from members of the public. The Commission also accepted comments from members of the public through its Internet web site. The Commission conducted the hearings as Class 1 contested case proceedings, pursuant to Wis. Stat. §§ 196.02(7), 196.49(5)(d), 227.01(3)(a), and 227.44.

The issue for hearing, as determined at the April 5, 2021 prehearing conference, was:

Should the Commission grant a Certificate of Authority for the proposed project, pursuant to the applicable standards from Wis. Stat. §§ 1.11, 1.12, 196.025, and 196.49, and Wis. Admin. Code chs. PSC 4 and 133, and if so, under what terms and conditions?

[\(PSC REF#: 409330.\)](#)

Initial briefs were filed on August 9, 2021, and reply briefs were filed on August 16, 2021. Initial and reply briefs supporting the project were filed by the applicants. Initial and reply briefs opposing the proposed project, or aspects of it, were filed by Sierra Club. The Commission discussed the record at its open meeting of November 4, 2021. ([PSC REF#: 425242.](#))

### **Findings of Fact**

1. The applicants are natural gas public utilities engaged in providing natural gas service in Wisconsin pursuant to Wis. Stat. § 196.01(5)(a). Pursuant to Wis. Stat. § 196.49, the applicants are subject to the Commission's jurisdiction over their application for a CA for the project.

2. The applicants' proposed project consists of a feed gas pretreatment system, a liquefaction system, an LNG storage tank, boil-off gas compressors, a truck loading/unloading facility, a fuel gas system, auxiliary transformers, emergency power supply, facility and instrument air systems, refrigerant storage, potable and service water, and a fire water system, at

an estimated cost of \$205 million for Bluff Creek and \$204 million for Ixonia, resulting in a total estimated cost of \$409 million, including AFUDC.

3. The applicants have previously been granted authority to provide natural gas service in all of the municipalities where the project will be constructed.

4. No unusual circumstances suggesting the likelihood of significant environmental consequences are associated with the proposed project.

5. Alternatives to the proposed project have been considered, but no other reasonable alternatives to the project exist that could provide adequate service in a more reliable, timely, cost-effective, and environmentally responsible manner.

6. Energy conservation, renewable resources, or other energy priorities listed in Wis. Stat. §§ 1.12 and 196.025, or their combination, are not cost-effective, technically feasible, or environmentally sound alternatives to the proposed project.

7. The general public interest and public convenience and necessity require completion of the proposed project. Completion of the proposed project at the estimated cost will not substantially impair the efficiency of the applicants' service, will not provide facilities unreasonably in excess of probable future requirements, and when placed in operation, will not add to the cost of service without proportionately increasing the value or available quantity thereof. Wis. Stat. § 196.49(3)(b).

8. Critical proposed facilities that could be damaged by flooding are not located in the 100 year flood plain. Consequently, there is no flood risk to the project per 1985 Executive Order 73.

**Conclusions of Law**

1. The applicants are public utilities as defined in Wis. Stat. § 196.01(5)(a).
2. The Commission has authority under Wis. Stat. §§ 1.11, 1.12, 196.02, 196.025, 196.395, and 196.49, and Wis. Admin. Code chs. PSC 4 and 133, to issue a Certificate and Order authorizing the applicants, as natural gas public utilities, to construct and place in operation the facilities in the Town of La Grange, Walworth County, Wisconsin and in the Town of Ixonia, Jefferson County, Wisconsin as described in this Final Decision, subject to the conditions stated in this Final Decision.
3. The general public interest and public convenience and necessity require completion of the proposed project. Completion of the proposed project at the estimated cost will not substantially impair the efficiency of the applicants' service, will not provide facilities unreasonably in excess of probable future requirements, and when placed in operation, will not add to the cost of service without proportionately increasing the value or available quantity thereof. Wis. Stat. § 196.49(3)(b).
4. The project complies with the Energy Priorities Law as required under Wis. Stat. § 1.12 and 196.025(1).
5. The estimated gross cost of the proposed project exceeds the minimum threshold of utility projects requiring Commission review and approval under Wis. Stat. § 196.49 and Wis. Admin. Code § PSC 133.03.
6. The Commission may impose any term, condition, or requirement necessary to protect the public interest pursuant to Wis. Stat. §§ 196.02, 196.395, and 196.49.

7. The proposed project meets the requirements of Wis. Stat. § 196.49(3)(b) and Wis. Admin. Code ch. PSC 133.

### **Opinion**

The Commission has a responsibility to ensure that Wisconsin utility customers receive adequate, reliable, and economical gas service, now and in the future. Nowhere is this more true than when dealing with services intended to “keep the heat on” during Wisconsin’s coldest days. The proposed project addresses the projected peak-day demand during the coldest days of Wisconsin’s upcoming winters, and was developed to address extreme weather conditions during those periods. The Commission’s proceeding on this CA application developed an extensive record from the public and parties on all issues that the Commission must consider in reviewing a project under Wisconsin law. The Commission acknowledges the thoughtful and helpful testimony from both the public and intervenors in this proceeding. This information assisted the Commission in its review of the application, in understanding the different perspectives toward the project, and in making its determinations on the application.

The evaluation of a technical and complex project, such as the one proposed in this docket, is an area in which the Commission has special expertise. Since 1907, the Commission has regulated public utilities to ensure that “reasonably adequate service and facilities” are available to the public at rates that are “reasonable and just.” Wis. Stat. § 196.03(1). The Commission’s expertise in administering Wis. Stat. § 196.49 to determine what proposed projects are appropriate additions to utility facilities has long been recognized by Wisconsin courts. *See Wisconsin Power & Light Co. v. Pub. Serv. Comm’n of Wisconsin*, 148 Wis. 2d 881, 888, 437 N.W.2d 888 (Ct. App. 1989); *see also Clean Wisconsin, Inc. v. Pub. Serv. Comm’n of*

*Wisconsin*, 2005 WI 93, 282 Wis. 2d 250, 700 N.W.2d 768 (recognizing the Commission's expertise in reviewing proposed utility construction projects under Wis. Stat. § 196.491, which review includes the statutory criteria in Wis. Stat. § 196.49).

Determining whether a proposed project is in the public interest often requires a high degree of discretion and judgment, and reasonable people may reach different conclusions. In addition, such decisions involve intertwined legal, factual, value, and public policy determinations. However, the Commission, as the finder of fact, is charged with sifting through all of the information and applying the statutory criteria to reach a well-reasoned decision. In doing so, the Commission uses its experience, technical competence, and specialized knowledge to determine the credibility of each witness and the persuasiveness of the highly technical evidence presented on each issue. The Commission's expertise is particularly important in cases such as the present where witnesses offer conflicting testimony regarding technical aspects of a proposed project.

The applicants are natural gas public utilities engaged in the business of selling and distributing natural gas to the public in Wisconsin. The applicants' proposed project consists of a feed gas pretreatment system, a liquefaction system, an LNG storage tank, boil-off gas compressors, a truck loading/unloading facility, a fuel gas system, auxiliary transformers, emergency power supply, facility and instrument air systems, refrigerant storage, potable and service water, and a fire water system.

The applicants estimated cost of each LNG facility is \$205 million for Bluff Creek and \$204 million for Ixonia, resulting in a total estimated cost of \$409 million, including AFUDC.

The project fits the definition of a “project” pursuant to Wis. Stat. § 196.49(3)(a). Wis. Stat. § 196.49(3)(b) states:

[N]o project may proceed until the [C]ommission has certified that public convenience and necessity require the project. The [C]ommission may refuse to certify a project if it appears that the completion of the project will do any of the following:

1. Substantially impair the efficiency of the service of the public utility.
2. Provide facilities unreasonably in excess of the probable future requirements.
3. When placed in operation, add to the cost of service without proportionately increasing the value or available quantity of service unless the public utility waives consideration by the [C]ommission, in the fixation of rates, of such consequent increase of cost of service.

### **Purpose and Need**

The applicants state that the project is necessary to improve system reliability, deliverability, and resilience in support of rising demand for natural gas among new and existing customers in Wisconsin. The applicants both present a need for additional deliverability of natural gas supply to meet projected peak-day demand during the coldest days of Wisconsin’s winters in the near future. The proposed project was developed to address such extreme weather concerns. In a few years, based on the applicants’ projections, the applicants will not have sufficient natural gas supplies to meet the needs of their customers.

The applicants’ methodology for forecasting need for the project was the same data and methodology used to develop their Gas Supply Plans for 2020-2023. ([PSC REF#: 417568](#) at 3-4; *see also* [PSC REF#: 397924](#); [PSC REF#: 397925](#).) The applicants’ Gas Supply Plans were submitted in dockets 6630-GP-2020 and 6650-GP-2020, covering sales and supply from November 2020 through October 2023. ([PSC REF#: 417568](#) at 3-4.) Similar to the analysis



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completed in their Gas Supply Plans, the applicants used historical sales data from January 2013 through March 2019, economic and demographic data from Moody's Analytics, and natural gas price forecasts from the NYMEX strip to develop forecast models by customer class. (*Id.*) Using this data, the applicants forecasted firm-design, peak-day demand with two regression models, relying on firm-design, peak-day demand forecasts because that measure assumes coldest-day weather conditions. (*See id.* at 3, 5-6.)

The first regression model estimated the baseload sales and the impact on sales of each additional heating day, this model was used to estimate the firm-design, peak-day demand starting point by estimating the applicants' sales on the potential coldest days of the year. (*See id.*). The second model was a multiple linear regression model of daily firm demand with explanatory variables capturing the impact of weather and customer growth, which was used to forecast daily firm demand for customer classes for all but the largest customers. (*Id.* at 6.) The applicants then adjusted the firm-design, peak-day demand to generate the firm-design, peak-day demand forecasts for the winter seasons of 2020-2021 and beyond. (*See id.*) The Commission approved the applicants' Gas Supply Plans, which included these forecasts, on October 7, 2020. (*See* [PSC REF#: 397924](#); [PSC REF#: 397925](#).) In the Final Decisions in the prior dockets 6630-GP-2020 and 6650-GP-2020, the Commission stated that "Commission staff reviewed the gas supply plan and noted that the reserve margin for [the applicants] is slightly lower than what the Commission considers to be an adequate reserve margin." (*See* [PSC REF#: 397924](#) at 3; [PSC REF#: 397925](#) at 3.) Commission staff were also "able to tie the firm demand forecast and resources to the approved gas plans for the gas years 2020-2021 through 2022-2023. ([PSC REF#: 412739](#) at 4.)

Commission staff reviewed the applicants' peak-day demand forecasts in the instant docket and stated in testimony that "[t]he Commission requires utilities to have a sufficient amount of capacity to supply firm customers with natural gas under extreme weather conditions" and "a target reserve margin of approximately 5.00 percent is included to cover unanticipated growth, forecasting errors, unexpected conditions, or system upsets." ([PSC REF#: 412739](#) at 2-3). Such a reserve margin is necessary because "[i]f the actual firm gas demand is greater than the pipeline transportation capacity into an area, those firm gas customers may be subject to curtailment, in which they lose access to natural gas." (*Id.* at 3.)

Commission staff analyzed all three load growth forecast scenarios presented by the applicants, a low case, a base case, and a high case forecast and found that all three firm peak demand forecast scenarios "showed both applicants under the 5.00 percent reserve margin." (*Id.* at 4.) Commission staff also concluded that "regardless of whether the forecast is done using the conservative growth rate or high growth rate, and with [Oak Creek LNG facility] in service, both forecasts demonstrate that additional capacity of some type is needed." (*Id.* at 7.)

The applicants argued that their situation is urgent, that not only is their peak-day demand likely to continue growing, but that the applicants cannot secure the same level of capacity upon the expiration of certain contracts in the near future—and are thus at risk of being short of their required firm deliverability sooner than they expected. (*See* [PSC REF#: 417583](#) at 7-8.)

The Commission has a statutory obligation to carefully weigh evidence against the statutes and administrative rules from which it derives jurisdiction and are bound to the obligation to ensure the residents of Wisconsin have safe, reliable, cost-effective, and

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environmentally responsible supply of power—24 hours per day, seven days per week, 365 days per year.

Therefore, the Commission finds, as discussed more fully below, that the proposed Bluff Creek project, if constructed, will meet the requirements of Wis. Stat. § 196.49(3)(b) and Wis. Admin. Code ch. PSC 133.

Commissioner Huebner dissents.

The Commission also finds, as discussed more fully below, that the proposed Ixonia project, if constructed, will meet the requirements of Wis. Stat. § 196.49(3)(b) and Wis. Admin. Code ch. PSC 133.

### **Load Projection Analysis**

Sierra Club opposed the project and suggested that statutory and regulatory requirements were not supported with sufficient evidence in the record. Sierra Club asserted that the applicants' need assumed load growth irreconcilable with Governor Evers' and President Biden's carbon commitments, double-counted new load additions, contained obsolete sales projections, and assumed the retirement of a facility that may not retire. Sierra Club suggested that the applicants failed to demonstrate that existing pipeline capacity is unavailable at reasonable terms and that demand-side alternatives are not feasible or cost-effective.

Sierra Club asserted that federal and state commitments to reduce Greenhouse Gas emissions, such as the Paris Agreement and the United States Climate Alliance, indicate that future natural gas demand must decline. These commitments, Sierra Club argued, require a 17.0 percent reduction in natural gas use in facilities by 2030, and, thus, the project is at odds with those commitments.

The Commission does not agree with these assertions. Additionally, the Commission is statutorily obligated to carefully weigh the evidence of the record against the backdrop of the statutes and administrative rules from which it derives its jurisdiction. The Commission finds that there is not sufficient evidence in the record to support a 17.0 percent reduction and the applicants' modeling supported the demand projections and load forecasts. The Commission cannot make its decisions based on aspirational goals. While these goals are laudable, the Commission must assess the data and make reasoned decisions based on that information. The applicants load forecast is reasonable and it is not necessary for the applicants should to revise the planning for winter peak capacity to incorporate a 17.0 percent reduction in natural gas use by 2030.

Sierra Club suggested that the applicants double-counted new commercial and industrial (C&I) load projections by adding new C&I load projections to projections that already account for new C&I load growth. Sierra Club believes this double-counting results in overstating the necessity for the projects. Sierra Club suggested that the applicants use an acceptable sales forecasting methodology such as adding a decay period to its projections to eliminate the double-counting of new C&I demand growth or remove the growth trend from the C&I portion of the peak load regression and account for specific added C&I loads and energy efficiently separately.

The applicants countered saying Sierra Club misunderstood the components of their gas supply plan forecasts, and that the consensus forecast used in the calculation of future peak-day demand did not include year-over-year growth, and, thus, did not already account for new C&I load growth. Accordingly, in order to predict future peak-day demand, applicants had to add multiple components of growth to that consensus forecast—one such component of growth being

the addition of new, specific large C&I customers that had requested new service or requested a change in existing service. But, as those additions were not already included in the consensus forecast, there was no double counting of that load growth.

Commission staff's analysis concluded that regardless of whether the forecast is done using a conservative growth rate or high growth rate, both forecast demonstrate that additional capacity is needed, and needed soon. Further, Commission staff concluded that the methodology used by the applicants in determining the peak-day demand forecast is accepted methodology that has been approved in the applicants' prior gas plans. ([PSC REF#: 412739](#) at 3.) The Commission finds that the applicants' C&I load forecasts were calculated using an acceptable methodology and do not need to incorporate a decay period nor remove the growth trend from the C&I portion of the peak load regression and account for specific C&I loads and energy efficiently separately.

Sierra Club additionally suggested that the applicants revise the near-term C&I load forecast for WE-GO to reflect the best available current knowledge regarding load growth. Sierra Club stated that WE-GO had not revised its original demand forecast to account for the absence of anticipated demand growth once expected of a new large C&I customer. Sierra Club asserted that the new large C&I customer has significantly reduced its original demand for natural gas, and that the applicants have not revised their forecasts to reflect that fact.

The applicants stated that the new large C&I customer identified by Sierra Club represents only 2.0 percent of WE-GO's peak-day demand and is not a meaningful driver of the need for Bluff Creek. The applicants further suggested that its forecasts are sufficiently robust to overcome any differences between modeled and actual load. The applicants stated that natural

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growth over time, known changes in firm demand due to customers changing from firm to transportation service, changes due to new customer load, and the loss of existing customer load are the four primary drivers that lead to peak demand changes.

The Commission finds that the analysis and load forecast that was done is acceptable and the weight of the evidence demonstrates that it is reasonable. Thus, it is unreasonable to require WE-GO to revise near-term C&I load forecasts.

Commissioner Huebner dissents.

Sierra Club also criticized its view that applicants assume the Oak Creek LNG facility currently operated by WE-GO will be removed from service in 2023-24 and never return to service. Sierra Club argued that WE-GO has no actual plans to permanently remove the Oak Creek LNG facility from service, and that the continued operation of that facility eliminates much of the anticipated capacity gap that constitutes the need for Bluff Creek.

However, Commission staff concluded that “regardless of whether the forecast is done using the conservative growth rate or high growth rate, and with [Oak Creek LNG facility] in service, both forecasts demonstrate that additional capacity of some type is needed.” ([PSC REF#: 412739](#) at 7.)

Sierra Club additionally argued that the Commission cannot apply a 5.0 percent reserve margin for natural gas in the instant docket without first adopting it by rule, and, thus, cannot consider such a reserve margin when evaluating the capacity gap that constitutes much of the need for the proposed project.

As Commission staff explained:

[t]he Commission requires utilities to have a sufficient amount of capacity to supply firm customers with natural gas under extreme weather conditions . . . [w]hen

contracting for capacity, a target reserve margin of approximately 5.00 percent is included to cover unanticipated growth, forecasting errors, unexpected conditions, or system upsets.

([PSC REF#: 412739](#) at 2-3.) The 5.0 percent reserve margin is a planning target, not an enforceable standard or threshold. (*Compare Wis. Stat. § 227.10(2m)* (prohibiting enforcement of standards without rulemaking).)

The Commission finds that the 5.0 percent reserve margin is a well-established planning target, based on the Commission's decades of experiencing administering the gas supply plan process. There is nothing in the record to support departing from the long-established, and prudent, requirement of a 5.0 percent reserve margin.

## **Alternatives, Energy Efficiency, and Conservation**

### **Economic and Project Alternative Analysis**

The applicants asserted that the proposed project is the only feasible option to ensure adequate service to meet forecasted demand by the necessary time frame. The applicants evaluated two system alternatives (Alternative 1 and Alternative 2).<sup>1</sup> As a result, based on their economic analysis and the operational benefits provided, the applicants asserted that the installation and operation of the LNG peaking facilities are in the best interests of their Wisconsin natural gas customers.

There would be no change in the current deliverability of natural gas in southeast Wisconsin under a no-build alternative, so no such alternative was proposed or evaluated by applicants due to the demonstrated need for increased deliverability of natural gas in the near

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<sup>1</sup> The discussion of the project alternatives in this section is limited to information in the application and the proceeding that is not subject to confidentiality.

future. Anticipated increasing demand for incremental firm deliverability, capacity, and supply of natural gas, primarily for customers located in service territories within southeast Wisconsin is out-pacing currently available supply. A no-build alternative would not address the stated objectives related to increasing demand and reliability in southeast Wisconsin.

The applicants performed three analyses to evaluate the overall economic benefit of the project: a scenario analysis that considered alternative planning assumptions under different load growth scenarios, including low, base, and high growth rates; a sensitivity analysis that determined how different values of an independent variable such as planning assumptions affected the economic value that the project would provide; and a risk analysis that was an extension of the sensitivity analysis but incorporated a complete enumeration of all changes in the independent variables and quantifies the potential cost to customers across almost 4,000 different unique scenarios. (See [PSC REF#: 420822](#) at 18.) The applicants contend that the project will provide additional benefits, beyond direct monetary benefits, such as increased reliability and resiliency, direct control over natural gas supplies during the winter months, a physical hedge against higher gas prices, and the ability to manage and control additional expansion. (See *id.* at 23-26.) The applicants further contend that the alternatives analyzed do not provide these additional benefits. (*Id.*)

The applicants performed an avoided cost analysis, which compared, on a net present value (NPV) basis, the forecasted expenses associated with constructing and operating the project and the alternatives. The NPV of the annual costs for each case were calculated and compared to derive the savings provided by the proposed project relative to the alternatives identified.



For each alternative examined, the applicants presented a range of base/low/high cases for assumed capital costs and associated operating expenses. The applicants stated that under base conditions, the project would provide cumulative NPV savings between \$224 million and \$267 million (33 percent to 37 percent) over the planning period, when compared to Alternative 1 and Alternative 2. Breaking down the cumulative NPV savings by applicant assigns between \$103 million and \$121 million (30 percent to 34 percent) to WE-GO, and assigns between \$122 million and \$146 million (35 percent to 39 percent) to WG. Of the thousands of sensitivity scenarios ran involving Alternative 1, Alternative 1 was lower in cost in only 23. Of the thousands of sensitivity scenarios ran involving Alternative 2, the project was lower in cost in every scenario. ([PSC REF#: 417583](#) at 21-22.)

Sierra Club asserted that the value of optionality was not considered in the comparison of different alternatives to meet the potential capacity gap. Option value measures the value of the ability to not make an irreversible decision. Sierra Club suggested that deferring the construction of the proposed project for seven years would yield a present optionality value of \$145 million. Sierra Club asserted that the proposed project is an opportunity cost that, once constructed, could represent a sunk cost for the duration of the proposed project's 40-year life cycle. Sierra Club argued that the applicants' financial modeling fully discounts any value from deferral and any value associated with climate change mitigation policies. Sierra Club proposed that incremental investments in smaller, shorter-lived, or reversible investments, such as investing in existing pipelines, fuel trucking, or other supply-side alternatives, or energy efficiency and demand response requirements to reduce peak day capacity needs, should be incorporated into the economic analysis and economic model. Sierra Club proposed that the applicants be required to

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include the value of alternative options in the comparison of different alternatives to meet the potential capacity gap.

Commission staff analysis concluded that the conclusions drawn from any avoided cost analysis are dependent on the range of inputs chosen, which included different scenarios related to capital cost, operating costs (including third-party interstate pipeline rates and surcharges), and future demand growth. The analysis indicated only 23 of the thousands of sensitivity scenarios included in the applicants' set of assumptions portray the proposed project as less economically justifiable relative to the alternatives, suggesting that the proposed project is preferable over the proposed alternatives. Commission staff stress-tested the applicants' economic modeling assumptions and expanded the variation between base/low/high capital cost assumptions for the proposed project and each alternative by an additional plus/minus 10 percent, and determined that the proposed project retained their relative value when compared to the alternatives. Commission staff determined "the proposed LNG Project appears to be the least cost option when compared to the alternatives." ([PSC REF#: 413891](#) at 4.)

The Commission does not find any deficiencies in how the applicants analyzed the economics of the project. The applicants have an obligation to serve, and the Commission has an obligation to make sure that citizens have reliable and affordable energy. Thus, the Commission determines the applicants should not include the value of alternative options analysis in the comparison of different alternative to meet the potential capacity gap.

Commissioner Huebner dissents.

Additionally, Sierra Club suggested that the applicants should evaluate the risk in the event that the proposed projects become a stranded asset or attempt to mitigate the risk to

Wisconsin ratepayers and the applicants' shareholders. Sierra Club proposed that the Commission could limit risk by requiring that the applicants accelerate the depreciation of the facilities by potentially using a 20-year depreciation schedule and requiring a condition on any CA that applicants are not allowed to earn a return on any costs of the proposed project in the event of abandonment.

The applicants asserted that the proposed project offers flexibility to respond to demand growth or reduction scenarios and will not become a stranded asset at any point during its service life cycle. The applicants argued that such a scenario, in light of the need for the project, is best left to future ratemaking proceedings and that accelerating depreciation for the project would increase rates for customers, potentially needlessly.

Commission staff analysis determined that under base conditions, application of a 20-year time period for the pipeline surcharges results in the project providing cumulative NPV savings between \$121 million and \$216 million (22 percent to 33 percent) over the planning period, when compared to Alternative 1 and Alternative 2. The cumulative NPV savings by the applicants assigns between \$49 million and \$90 million (18 percent to 28 percent) to WE-GO, and assigns between \$72 million and \$127 million (25 percent to 37 percent) to WG for a 20-year time period; thus, reducing the life of the project decreased the cumulative NPV savings over the planning period because of the higher costs.

The Commission notes that accelerating depreciation increases the price in the short run, and therefore the applicants should not evaluate the risk that the proposed project becomes stranded.

### **Energy Efficiency and Conservation**

As discussed above, the methodology of the applicants demand forecasts was sound. The applicants have demonstrated that those demand forecasts include energy conservation considerations—including a base case that reflects a significantly lower rate of demand growth than the applicants have experienced in the recent past and a low demand forecast that includes considerations for increased energy efficiency and conservation. ([PSC REF#: 420822](#) at 20.) The applicants noted, however, that even with such considerations in their demand forecasts, some type of construction, such as the project, saves customers a considerable amount of money. (*Id.* at 21.) The applicants also emphasized their demonstrated need for the project, and noted that even Sierra Club’s expert admitted that energy efficiency measures will not prevent the substantial capacity gap expected in the near future that is one of the core factors for the proposed project. (*See* [PSC REF#: 421675](#) at 28-29.)

Sierra Club argued that the applicants only provided evidence regarding the two alternatives discussed above, and did not make reasonable efforts to obtain rights to existing pipeline capacity from third parties or demonstrate that non-pipeline alternatives are infeasible or not cost-effective. Sierra Club presented testimony asserting that the applicants failed to meet their burden to demonstrate that load-side alternatives, including energy efficiency and demand response, are unavailable or not cost-effective—arguing that the applicants’ methodology of simply reducing the demand growth rate in the low demand forecast is unsupported in the record as truly measuring or evaluating the effect of increased energy efficiency. Sierra Club stated that the record demonstrated that energy efficiency and demand response were technically feasible and more cost effective than high marginal cost of capacity provided by the project. Sierra Club

requested that the applicants be required, as a condition of approval, to demonstrate that a portfolio of demand-side alternatives sufficient to delay or avoid the proposed projects were not technically feasible or cost-effective, as required by Wis. Stat. §§ 1.12(4) and 196.025(1). Such proposed demand-side alternatives included temperature-controlled rates and demand response tariffs, or technology such as smart thermostats, smart gas meters, or heat pumps.

The applicants responded to Sierra Club's statements by suggesting that the demand-side alternatives proposed by Sierra Club are not deployable in the necessary timeframe to meet the forecasted peak day natural gas demand. (See [PSC REF#: 417591](#) at 18-20.) Sierra Club's expert witness even noted that the while the "untapped potential of cost-effective energy efficiency . . . is many times the difference between [the applicants] base and low demand forecast," even "[c]ombined with the load forecasts corrected for better treatment of C&I loads," the peak load can still only be reduced to being "very close" to the critical load for need, with the largest gap between demand and secured capacity only a few years away. ([PSC REF#: 418611](#) at 28.) It still is not enough. Sierra Club argued that its proposed demand-side alternatives would bridge such a capacity gap, but there is nothing in the record demonstrating that such demand-side alternatives are truly feasible at a scale necessary to truly, and safely, make up for such a capacity gap.

Heating season is approaching, and future heating seasons in which the applicants may not have the capacity to meet demand are also not far off. The Commission has an obligation to the residents of Wisconsin to ensure that they have reliable sources of energy. The Commission finds that the record in this case did not demonstrate any technically feasible or cost-effective alternatives to the proposed project. As the applicants noted, Wis. Stat. § 196.49 is clear, and the

Commission may only refuse to grant a CA to the applicants if the proposed project will substantially impair the applicants' service, if the proposed project will provide facilities unreasonably in excess of applicants probable future requirements, or if the proposed project will add to the cost of service without proportionately increasing the value or available quantity of service.

While the Commission would like to see future applicants seeking to obtain a CA model energy efficiency and demand response as an actual resource against alternatives in the future, it does not change that the record in the instant docket does not support refusing the requested CA. The Commission finds that the proposed projects comply with state energy policies on prioritization of fuel choices and the promotion of energy conservation and efficiency, and do not require the applicants to demonstrate that a portfolio of demand-side alternatives sufficient to delay or avoid the proposed facilities is not technologically feasible or cost effective. The Commission notes, however, that while it cannot order additional energy efficiency measures if the applicant has met the 1.2 percent Focus on Energy funding goal, that does not eliminate the need for the Commission to evaluate technically feasible and cost-effective alternatives, even if such alternatives were not present in the record in the instant docket.

### **Energy Priorities Law**

Wisconsin Stat. § 196.025(1)(ar) requires the Commission, to the extent cost-effective, technically feasible, environmentally sound, to consider the following priorities in Wis. Stat. § 1.12(4), known as the Energy Priorities Law (EPL), in making all energy-related decisions and orders:

- (a) Energy conservation and efficiency.
- (b) Noncombustible and renewable energy resources.

- (c) Combustible nonrenewable energy resources, in the order listed:
  - 1. Natural Gas.
  - 2. Oil or coal with Sulphur content of less than 1%.
  - 3. All other carbon-based fuels.

In enacting the EPL, however, the Legislature made a point of recognizing that the bill did not create any standards for determining the extent to which the priority list is actually used in making such determinations, nor did the lawmakers establish that an item that is not on the top of the list cannot be built. Instead, the legislators made clear that agencies should look to how a project could fit into the entire energy mix. “[C]ompliance with the directive that agencies follow the priority list will be reflected in the overall pattern of decisions made by each agency . . . the success of implementing the priority list will be reflected in the overall pattern of energy generation and use, across the state and through time.” Prefatory Note to 1993 Assembly Bill 701.

The applicants argued that that the project is the least-cost alternative that has been demonstrated to be feasible to meet the need described above. The applicants noted that no noncombustible or renewable energy resources had been proposed or identified in this docket. The applicants further emphasized that the technical feasibility of an energy option must account for the need for the project, and higher-priority energy options cannot be feasible if they cannot meet that need.

Sierra Club argued that that the applicants overstated their projected future gas demands and failed to demonstrate that lower-cost, higher-priority resources are unavailable to meet any capacity deficiency. Sierra Club further argued that the Commission must deny a certificate of authority under Wis. Stat. § 196.49 if higher-priority energy options are cost-effective, technically feasible, and environmentally sound. Sierra Club requested that the applicants be required, as a condition of the Commission granting the CA, to demonstrate that a portfolio of

demand-side alternatives sufficient to delay or avoid the proposed project are not cost-effective or technically feasible.

The Commission denies Sierra Club's request and finds that the proposed project complies with the state energy policies on prioritization of fuel choices and the promotion of energy conservation and efficiency. The Supreme Court of Wisconsin has held that the Commission's interpretation of "'cost effective and technically feasible' must be harmonized" with other laws and requirements the Commission must consider in making "energy-related decisions," otherwise "there is no context in which to gauge whether an option is cost effective or technically feasible." *Clean Wisconsin, Inc. v. Pub. Serv. Comm'n of Wisconsin*, 2005 WI 93, ¶121, 282 Wis. 2d 250, 700 N.W.2d 768. The Commission is bound by their statutory obligation to ensure the residents of Wisconsin have a safe, reliable, cost-effective, and environmentally responsible supply of power. The Commission finds that applicants should be putting forth a portfolio of options and that energy and demand response should be modeled, but holds that when the EPL is being considered, the Commission must emphasize the review of cost-effectiveness and technical feasibility. If an alternative to a project is not proven as being capable of meeting the specific need that is being addressed, then it fails to be a feasible alternative.

The Commission finds that there are no alternatives in the record of the instant docket that meet the requirements of the Wis. Stat. §§ 196.025(1)(ar) and 1.12(4). Commission staff would have had to make a number of ill-advised assumptions to find that some of the proposed alternatives were feasible, and such speculation cannot be allowed when there is demonstrated project need such as in the instant docket.



## **Project Sites**

The projects will be located near each applicant's distribution system in areas of concentrated firm customer demand. The LNG facility near Ixonia will serve customers in WG's greater Milwaukee service area by way of the Ixonia lateral. The LNG facility near the Town of La Grange, east of Whitewater, will serve customers in WE-GO's southeast Wisconsin service area delivering firm LNG supply by way of the recently approved Lakeshore Lateral.<sup>2</sup> Both sites will be located within southeast Wisconsin and include new LNG peaking facilities, associated on-site pipelines, and supporting equipment at both sites. Ixonia will be constructed approximately one mile north of the Town of Ixonia, near the intersection of North Road and Hill Road, Jefferson County. Bluff Creek will be located about 1.5 miles south of the Town of La Grange, east of Highway O and north of Territorial Road, Walworth County. The proposed Ixonia facility will also require a new, approximately seven-mile underground 24.9 kilovolt electric feed line that is proposed to originate at the existing Concord Power Plant substation near Watertown, Wisconsin.

## **Environmental Review**

### **Compliance with Wisconsin Environmental Policy Act (WEPA)**

Wisconsin Stat. § 1.11 requires all state agencies to consider the environmental impacts of "major actions" that could significantly affect the quality of the human environment. In Wis. Admin. Code ch. PSC 4, the Commission has categorized the types of actions it undertakes for purposes of complying with this law. This is a Type II action under Wis. Admin. Code § PSC 4.10(2). The Commission has fulfilled its requirements under WEPA through the

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<sup>2</sup> Docket 6630-CG-138, Commission Final Decision issued June 25, 2020.

preparation and issuance of an environmental assessment. It has been determined that no significant environmental impacts on the human environment were likely to occur as a result of this project. Therefore, preparation of an environmental impact statement is not required. The findings of the EA are summarized below. The electric distribution feeder line associated with Ixonia will be located entirely within public road right-of-way along with a portion on property owned by WG. No new easements are expected to be needed for this line.

### **Agricultural Resources**

The Ixonia construction footprint and Bluff Creek construction footprint occur on land currently in agricultural production, primarily cropland consisting mostly of row crops such as corn and soy. The applicants have options to purchase the properties and plan to purchase the properties. Other agricultural land uses in the area include pastures, hayfields, farm residences, farm buildings, wooded areas, wetlands, and farm roads. Construction of the proposed projects at both sites will permanently remove agricultural land from production and has the potential to temporarily affect adjacent agricultural land during construction. Temporary impacts such as soil compaction and disturbance are also expected to occur at both sites during the construction phase of the project.

More specifically, there are 37 acres of agricultural land present within the proposed construction footprint at the Ixonia site. All 37 acres are expected to be either temporarily or permanently impacted. Similarly, the land cover at the Bluff Creek site is almost entirely agricultural. A total of 52 acres of cropland falls within the proposed construction footprint, and all 52 acres are expected to be either temporarily or permanently impacted.

### **Historic Resources Review**

A search of the Wisconsin Historical Society's Wisconsin Historic Preservation database revealed no known archaeological or historic resources near the proposed project routes. No known cemeteries or burial sites are located in the project vicinity. The construction of the proposed facilities is not expected to affect any historic properties under Wis. Stat. § 44.40.

### **Endangered Resources (ER) Review**

The DNR Natural Heritage Inventory database was reviewed for endangered and threatened species, and species of special concern. One endangered herptile and one special concern reptile species of concern came up as a result of the search of the project area for the Ixonia facility. The endangered herptile species is considered to be extant in this area of Wisconsin and therefore, this project will not have any impacts on it. DNR provided a recommended action for avoidance of the special concern reptile, which the applicants have stated they will implement during project construction activities. No potential rare species resulted from the search of the Bluff Creek site area.

Construction of the proposed facilities is not expected to significantly affect any endangered or threatened species under Wis. Stat. § 29.604(6r).

### **Wetlands and Waterways**

Construction of the Ixonia facility and associated underground electric line will require a wetland fill permit under Wis. Stat. § 281.36. Installation of the input and output gas pipeline segments at the Ixonia facility and installation of the underground electric line will result in 8,725 square feet (sq. ft.) (0.20 acre) of temporary wetland fill associated with excavation and backfill in wetland, as well as 69,814 sq. ft. (1.63 acre) of temporary wetland fill associated with

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the placement of construction matting to facilitate vehicle access and equipment and material storage in wetland. All wetlands within the construction corridor for the off-site electric line will be directionally bored; however, small areas of excavation in wetland will occur for bore entry and exit pits. Construction of the valve station will result in 3,042 sq. ft. (0.07 acre) of permanent wetland fill.

Construction of the Ixonia facility will require a permit under Wis. Stat. § 30.20 for dredging one waterway to install the input and output pipelines at the Ixonia facility. The project will also require a permit under Wis. Stat. § 30.123 to place a temporary clear span bridge over this same waterway, stream S-1, an unnamed tributary to the Rock River. All waterways located within the associated underground electric line corridor will be directionally bored. A Wis. Stat. § 30.19 pond permit is required to construct a stormwater pond within 500-feet of a waterway at the Ixonia facility.

As no waterways or wetlands are present at the Bluff Creek facility, a permit under Wis. Stat. ch. 30 and/or Wis. Stat. § 281.36 is not required.

### **Flood Hazards**

The northern portion of the Ixonia property boundary is mapped floodplain. The Ixonia facility footprint will be located within a portion of the mapped floodplain and the proposed valve station will be entirely located within mapped floodplain. As the placement of permanent structures in a floodplain is proposed, the applicants will need to obtain the necessary permits and/or approvals from the applicable floodplain zoning authority, Jefferson County, prior to construction. Federal Emergency Management Agency approval may also be required to remove land from the floodplain. The applicants are currently working with Jefferson County regarding

the project proposal's compliance with local floodplain ordinance. The DNR Floodplain Engineer for Jefferson County assists the county in reviewing the floodplain permit application submitted to the county; however, DNR does not have floodplain permit authority under state statute.

A portion of segments 1 and 4 along the off-site electric line needed for the Ixonia facility also crosses mapped floodplain.

The applicants stated that the containment part of the facility will require ground grading, and therefore additional localized topography, around it to prevent floodwater from entering the containment. They also stated that the channel that historically existed at the site has been farmed over, leveled, and is no longer identifiable as previously documented.

No mapped floodplains exist at the Bluff Creek site.

#### **Other Environmental Review Areas**

##### ***Air Resources – Ixonia Facility***

The existing air in Jefferson County is in attainment/unclassified for all National Ambient Air Quality Standards (NAAQS) pollutant. Criteria pollutant emissions from the project are expected to be less than the Prevention of Significant Deterioration (PSD) significance level thresholds. The following air permits are expected to be required for the site, and the permit applications have not been submitted to DNR.

##### **Minor Construction Permits**

An air pollution control construction permit that does not require review under Wis. Admin. Code chs. NR 405 or 408 is considered a minor action under Wis. Adm. Code § NR 150.20(1m)(o), and as such, is compliant with WEPA and does not require a determination prior to permit issuance. Since the DNR air pollution control construction permit for this project

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does not require review under Wis. Admin. Code chs. NR 405 or 408, a determination under Wis. Admin. Code ch. NR 150 will not be required prior to issuance of construction permits issued under Wis. Admin. Code ch. NR 406.

### **Initial Operation Permits**

The issuance of an initial air pollution control operation permit under Wis. Stat. §§ 285.60 and 285.62 is considered an integrated analysis action under Wis. Admin. Code § NR 150.20(2)(a)4. Actions specified under Wis. Admin. Code § NR 150.20(2) require a WEPA compliance determination under Wis. Admin. Code § NR 150.35, but do not require a separate environmental analysis under Wis. Admin. Code ch. NR 150. An initial air pollution control operation permit will be required for this project; therefore, a WEPA compliance determination under Wis. Admin. Code § NR 150.35 will be required and included in the preliminary determination for any initial air pollution control operation permit. The source would be required to submit information regarding the environmental impacts in an Environmental Analysis Questionnaire submitted as part of the air pollution control operation permit application. However, the remainder of the EA exceeded the Environmental Analysis Questionnaire's detail. DNR will review the EA information to determine whether the proposal is expected to have potential to cause significant adverse environmental or secondary effects as part of the application review process. Notification of DNR's determination under Wis. Admin. Code § NR 150.35 is required and would be included in the public notice for the air pollution control operation permit.

***Air Resources – Bluff Creek Facility***

The existing air in all of Walworth County was historically classified as nonattainment for the NAAQS of 1-hour Ozone standard. Criteria pollutant emissions from the project are expected to be less than the PSD significance level thresholds. The following air permits are expected to be required for the site, and the permit applications have not been submitted to DNR.

**Minor Construction Permits**

An air pollution control construction permit that does not require review under Wis. Admin. Code chs. NR 405 or 408 is considered a minor action under Wis. Admin. Code § NR 150.20(1m)(o), and as such is compliant with WEPA and does not require a determination prior to permit issuance. Since the DNR air pollution control construction permit for this project does not require review under Wis. Admin. Code chs. NR 405 or 408, a determination under Wis. Admin. Code ch. NR 150 will not be required prior to issuance of a construction permit issued under Wis. Admin. Code ch. NR 406.

**Initial Operation Permits**

The issuance of an initial air pollution control operation permit under Wis. Stat. §§ 285.60 and 285.62 is considered an integrated analysis action under Wis. Admin. Code § NR 150.20(2)(a)4. Actions specified under Wis. Admin. Code § NR 150.20(2) require a WEPA compliance determination under Wis. Admin. Code § NR 150.35, but do not require a separate environmental analysis under Wis. Admin. Code ch. NR 150. An initial air pollution control operation permit will be required for this project; therefore, a WEPA compliance determination under Wis. Admin. Code § NR 150.35 will be required and included in the preliminary determination for any initial air pollution control operation permit. The source

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would be required to submit information regarding the environmental impacts in an Environmental Analysis Questionnaire submitted as part of the air pollution control operation permit application. However, the rest of the EA exceeds the Environmental Analysis Questionnaire's detail. DNR will review the EA information to determine whether the proposal is expected to have potential to cause significant adverse environmental or secondary effects as part of the application review process. Notification of DNR's determination under Wis. Admin. Code § NR 150.35 is required and would be included in the public notice for the air pollution control operation permit.

### **Federal, State, and Local Permits**

The applicants stated they will obtain all necessary federal, state, and local permits prior to commencing construction of the respective facilities and any identified segments or phases of the facilities for the project.

### **Safety**

LNG facilities constructed after March 31, 2000, are subject to all safety standards in Title 49 Code of Federal Regulations (CFR) Part 193 and National Fire Protection Association (NFPA) 59A-2001. The Commission adopted 49 CFR Part 193 in its entirety in Wis. Admin. Code § PSC 135.019. Regulations specific to the siting of LNG facilities are located in 49 CFR Part 193 Subpart B.

Some members of the public opposed the construction and operation of the project, primarily at the Ixonia site, for a variety of reasons such as safety, proximity to a school, the ability of the local fire department to respond to an emergency, construction and truck traffic in a



rural area, groundwater contamination and flooding, carbon-emitting energy production, cost to ratepayers, and the effect on local property values.

Commission staff's evaluation concluded that the proposed project designs complied with 49 CFR Part 193 Subpart B, but recommended further actions for Commission consideration that would take place during the final design stage. These additional conditions would further ensure the safety of the design and operation of the Project. The applicants supported the imposition of the conditions suggested by Commission staff. The Commission finds that the imposition of the conditions as described in the Order Conditions of this Final Decision are reasonable in order to confirm compliance with applicable safety requirements.

### **General Conditions**

Typically, the Commission's Final Decision for gas construction projects includes general conditions relating to the authorized construction, reporting, communication, and minor siting adjustments. Commission staff proposed that the Commission might wish to consider imposing similar conditions in this case. The applicants and Sierra Club supported the imposition of the conditions suggested by Commission staff. The Commission finds that the imposition of such general conditions as described in the Order Conditions of this Final Decision are reasonable.

### **Surcharge Waiver**

The applicants requested that customers signing up for initial service in the Ixonia area not be subject to customer contribution requirements under the applicants' rules for new extension of gas mains. The applicants asserted that waiving surcharges for new customers in areas adjacent to the projects defrays costs for existing customers and provides further benefits to the local

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communities hosting the project. Commission staff recommended that the waiver apply to customers in proximity to Bluff Creek as well. Commission staff recommended that customers still be subject to the service line extension costs. This request is consistent with the Commission's Final Decision in docket 6650-CG-233. Commission staff noted that allowing the waiver to extend through the end of 2026 would be closer to five years after the start of construction, and recommend the waiver apply to new customers who sign up prior to the end of 2026. The applicants supported Commission staff's recommendations. The Commission determined it was necessary for the applicants to waive any extension rule gas main customer charges for new customers served from the approved project for the first five years, ending December 31, 2026, and that new customers will still be subject to extension rule service line charges.

### **Construction Schedule**

Construction is expected to begin in January of 2022 with completion by November 2023.

### **Project Cost and Rate Impact**

The total estimated cost of Ixonia and Bluff Creek, each, is \$185 million, excluding AFUDC. The applicants requested that the project earn 100 percent AFUDC. It is reasonable for the applicants to record 100 percent AFUDC on construction work in progress their respective weighted average costs of capital. The revenue requirement impact is estimated to be \$18,867,500, or 4.42 percent for WE-GO, and \$18,534,500, or 4.47 percent for WG.

Construction of the proposed projects as authorized is estimated to cost \$205 million for Bluff Creek and \$204 million for Ixonia, resulting in a total estimated cost of \$409 million, including AFUDC as shown below.

**Estimated Project Cost WE-GO**

<b>Plant Account</b>	
Land and Land Rights	\$2,300,000
Structures and Improvements	\$173,700,000
Mains	\$8,000,000
Measuring and Regulating Station Equipment	\$1,000,000
<b>Subtotal</b>	<b>\$185,000,000</b>
AFUDC	\$19,800,000
<b>Project Cost as Approved-WE-GO</b>	<b>\$204,800,000</b>

**Estimated Project Cost WG**

<b>Plant Account</b>	
Land and Land Rights	\$2,300,000
Structures and Improvements	\$173,700,000
Mains	\$8,000,000
Measuring and Regulating Station Equipment	\$1,000,000
<b>Subtotal</b>	<b>\$185,000,000</b>
AFUDC	\$19,300,000
<b>Project Cost as Approved-WG</b>	<b>\$204,300,000</b>

**Certificates**

WE-GO is granted a CA to install and operate an LNG peaking facility in the Town of La Grange, Walworth County, Wisconsin as described in its application and as modified by this Final Decision, at an estimated total cost of \$204,800,000 including AFUDC.

Commissioner Huebner dissents.

WG is granted a CA to install and operate an LNG peaking facility in the Town of Ixonia, Jefferson County, Wisconsin as described in its application and as modified by this Final Decision, at an estimated total cost of \$204,300,000 including AFUDC.

**Order**

1. WE-GO is granted authority to install and operate an LNG peaking facility in the Town of La Grange, Walworth County, Wisconsin as described in its application and as modified by this Final Decision.

2. The estimated cost of the project for WE-GO is \$204,800,000 including AFUDC.

3. WG is granted authority to install and operate an LNG peaking facility in the Town of Ixonia, Jefferson County, Wisconsin as described in its application and as modified by this Final Decision.

4. The estimated cost of the project for WG is \$204,300,000 including AFUDC.

5. The applicants shall build the facilities in accordance with the description in the application, data requests, and Commission decision.

6. The applicants shall notify and obtain approval from the Commission before proceeding with any substantial change in the design, size, cost, or location of the approved project.

7. If it is discovered or identified that the project cost, including *force majeure* costs, may exceed the estimated cost by more than 10 percent, the applicants shall notify the Commission within 30 days of when it becomes aware of the possible change or cost increase.

8. The applicants shall construct the approved project in accordance with applicable state and federal law, including Wis. Admin. Code ch. PSC 135 and 49 CFR Parts 192, 193, and 199.

9. The applicants shall obtain all necessary federal, state, and local permits prior to the commencement of construction of any proposed construction phase, as described in the applicants' application.

10. The applicants shall notify the Commission within 5 working days of the date actual, on site, physical construction of the approved project is started and shall notify the Commission within 20 working days after the approved facilities are placed in service.

11. The applicants shall obtain an updated ER Review closer to the start date of construction (no more than one year prior to construction start).

12. The applicants shall file a report with the Commission promptly upon completion of construction of the approved project. The report shall include the final costs for the project segregated by plant account, a table comparing the estimated and actual costs for each of the major components of the project, a table comparing the estimated and actual footage and the actual cost for each type and size of pipe installed, and an explanation of any significant variation between the authorized and actual cost.

13. The applicants shall conduct post-construction pressure testing of the 6-inch and 12-inch inlet and outlet piping as specified in 49 CFR §§ 192.505 and 192.619(a)(2)(ii), and Wis. Admin. Code § PSC.135.505.

14. The applicants shall submit to the Commission, for its review, an updated siting analysis that includes the design liquid spill scenario based on the final design and configuration of the trenches and impounding systems, no less than 60 days prior to commencement of commissioning of the LNG facilities.

15. The applicants shall provide to the Commission the final design piping and instrument diagrams as well as isometric drawings of the following piping once finalized, but no less than 60 days prior to commencement of commissioning of the LNG facilities. The piping and instrument diagrams and the isometric drawings should demonstrate that the piping is located inside enclosed buildings.

- a. Four-inch line to vaporizer including the connection to the common sendout line;
- b. Boil off gas compressor's outlet line;
- c. Tail gas compressor's outlet line; and
- d. Tail gas cooler's outlet line.

16. The applicants shall submit to the Commission, for its review, the following final design information of the shrouds once finalized, but no less than 60 days prior to the commencement of commissioning of the LNG facilities. The final design information submitted to the Commission must include drawings and specifications for the shrouds that show the configurations, sizes, and documentation on: (a) the shroud locations, (b) materials of construction, (c) compatibility for LNG service (if the shroud is for LNG release), (d) integrity against the momentum of the release, (e) installation procedures, (f) testing criteria, and (g) inspection requirements. The design of the shrouds also needs to demonstrate that it does not create a covered impounding system according to 49 CFR § 193.2167.

- a. The common sendout line;
- b. The sendout line to the vaporizer;
- c. The feed gas inlet line; and
- d. The vaporizer outlet line.

17. The applicants shall submit to the Commission, for its review, the final detailed design of the impoundment systems, including cross sectional drawings showing the dimensions and elevations of the impoundment system and swale, to the Commission once finalized, but at least 60 days prior to commencement of commissioning of the LNG facilities.

18. The dimensions of the impoundment wall height and distance from the containers shall comply with NFPA 59A-2001 Section 2.2.2.6.

19. The applicants shall submit to the Commission, for its review, the LNG storage tank structural design details once finalized, but no less than 60 days prior to commencement of commissioning of the LNG facilities, demonstrating that the tanks would withstand an overpressure associated with a vapor cloud explosion in the vaporizer or boil off gas/tail gas buildings.

20. Once the finalized location of critical safety equipment has been determined, the applicants shall submit to the Commission, for its review, after completing the final design but no less than 60 days prior to commencement of commissioning of the LNG facilities, an assessment and refined modeling demonstrating that a vapor cloud explosion would not impact critical safety equipment or cause cascading events.

21. The applicants shall submit to the Commission the final geotechnical report for the Ixonia facility.

22. The applicants shall submit to the Commission, for its review, the final version of the following documents of the following once finalized, but no less than 60 days prior to commencement of commissioning of the LNG facilities:

a. Overall plot plans showing the property boundary and unit plot plans for each process area showing all major equipment, structures, buildings, and impoundment systems. The unit plot plans should be detailed enough to allow for measurement of distances between various components with a reasonable degree of accuracy.

b. Process flow diagrams, piping and instrument diagrams, and heat and material balances.

23. The applicants shall submit to the Commission, for its review, a completed copy of applicable portions of the Pipeline and Hazardous Materials Safety Administration Liquefied Natural Gas Inspection Assistant Question Set. Responses to questions related to the design of specific components shall be provided after completing the final design but no less than 60 days prior to commencement of commissioning of the LNG facilities. Responses to all other questions shall be submitted no later than 60 days prior to the commissioning of the facilities. Responses to questions related to field observations do not need to be provided.

24. The applicants shall provide to the Commission, for its review, operating and maintenance plans, including safety procedures and emergency response procedures, not later than 60 days prior to commissioning of the facilities.

25. The applicants shall submit to the Commission, for its review, a fire protection analysis after completing the final design but no less than 60 days prior to commencement of commissioning of the LNG facilities, justifying the type, quantity, and location of hazard detection and hazard control, passive fire protection, emergency shutdown and depressurizing systems, firewater, and emergency response equipment, training, and qualifications in accordance with NFPA 59A (2001).



26. The applicants shall submit to the Commission, for its review, a safety assessment, after completing the final design of security systems but no less than 60 days prior to commencement of commissioning of the LNG facilities, justifying final design details on security features such as lighting and camera coverage, fencing, and preventing unauthorized access.

27. The applicants shall submit to the Commission, for its review, detailed plans and procedures for testing the integrity of on-site mechanical installation, functional tests, introduction of hazardous fluids, operational tests; and placing the equipment into service.

28. The applicants shall complete and document a pre-start-up safety review prior to the introduction of hazardous fluids to ensure the installed equipment meets the design and operating intent of the facilities.

29. The applicants shall waive any extension rule gas main customer charges for new customers served from the approved project for the first five years, ending December 31, 2026. New customers will still be subject to extension rule service line charges.

30. Beginning with the quarter ending March 31, 2022, and within 30 days of the end of each quarter thereafter and continuing until the authorized facilities are fully operational, the applicants shall submit quarterly progress reports to the Commission that include all of the following:

- a. The date that construction commences;
- b. Major construction and environmental milestones, including permits obtained, by agency, subject, and date;
- c. Summaries of the status of construction, the anticipated in service date, and the overall percent of physical completion;

d. Actual project costs to-date segregated by line item as reflected in the cost breakdown listed in this Final Decision;

e. Once each year, a revised total cost estimate for the project; and

f. The date that the facilities are placed in service.

31. Nothing in the Final Decision authorizes the applicants to perform any of the following actions: purchase additional transportation capacity, balancing, storage, or other pipeline services; or obtain purchased gas adjustment recovery of the costs of additional natural gas supply.

32. The CA is valid only if construction commences no later than one year after the latest of the following dates:

a. The date the Final Decision is served;

b. The date when the applicant has received every federal and state permit, approval, and license that is required prior to commencement of construction under the CA;

c. The date when the deadlines expire for requesting administrative review or reconsideration of the CA and of the permits, approvals, and licenses described in par.

(b); and

d. The date when the applicant receives the Final Decision, after exhaustion of judicial review, in every proceeding for judicial review concerning the CA and the permits, approvals, and licenses described in par. (b).

33. If the applicants do not commence construction of the authorized project within one year of the time period specified by this Final Decision, the Certificate authorizing the

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approved project for which construction has not commenced shall become void unless the applicants:

a. file a written request for an extension of time with the Commission before the date on which the Certificate becomes void; and

b. are granted an extension by the Commission.

34. This Final Decision takes effect one day after the date of service.

35. Jurisdiction is retained.

### **CONCURRENCE AND DISSENT**

Commissioner Huebner concurs in part, dissents in part and writes separately (see attached).

Dated at Madison, Wisconsin, this 22<sup>nd</sup> day of December, 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

SPC:KEC:ZJP:jlt:DL:01838202

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN  
4822 Madison Yards Way  
P.O. Box 7854  
Madison, Wisconsin 53707-7854

**NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE  
TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE  
PARTY TO BE NAMED AS RESPONDENT**

The following notice is served on you as part of the Commission's written decision. This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

*PETITION FOR REHEARING*

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

*PETITION FOR JUDICIAL REVIEW*

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.<sup>3</sup> The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

If this decision is an order denying rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not permitted.

Revised: March 27, 2013

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<sup>3</sup> See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.

**APPENDIX A**

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## PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Electric Power Company and Wisconsin Gas LLC for a Certificate of Authority under Wis. Stat. § 196.49 and Wis. Admin. Code § PSC 133.03 to Construct a System of New Liquefied Natural Gas Facilities and Associated Natural Gas Pipelines near Ixonia and Bluff Creek, Wisconsin

5-CG-106

### CONCURRENCE AND DISSENT OF COMMISSIONER TYLER HUEBNER

I write to concur in part and dissent in part with the Commission's decision in this docket.

#### Concurrence with Wisconsin Gas LNG Facility

I agree that the Wisconsin Gas LLC (WG) LNG facility proposed in Ixonia (Ixonia LNG Facility) is in the public interest and concur with the Commission's decision to grant a Certificate of Authority. WG demonstrated ample future need for natural gas supply on the peak (coldest) days both in the near and medium term based upon the confidential information supplied in the application, Table 2-1 at page 43.<sup>1</sup>

I also agree with Sierra Club witness Dr. Hopkins that future demand-side solutions<sup>2</sup> should be pursued and could potentially meet future demand needs. However, WG's demonstrated need exceeds the feasible level of deployment of demand-side solutions identified in this record. Therefore I find that, with the conditions agreed upon by the Commission, the

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<sup>1</sup> Due to the confidentiality of certain information, I am omitting certain specifics so this Concurrence and Dissent can remain public.

<sup>2</sup> I use the term "demand-side solutions" to include energy efficiency, electrification of current natural gas uses, demand response, and/or interruptible rates which are all variously described in the record.



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Ixonia LNG Facility for WG meets the public interest standards defined in Wis. Stat. § 196.49(3).

### **Dissent from Wisconsin Electric – Gas Operations LNG Facility**

In contrast, I found that the Wisconsin Electric – Gas Operations (WE-GO) proposed facility in Bluff Creek (Bluff Creek LNG Facility) does not meet the requirements of Wis. Stat. § 196.49(3). In particular, the record raised significant doubts in my mind as to whether the facilities are reasonably in excess of probable future requirements<sup>3</sup> and whether the facilities, when placed in operation, will increase the value or available quantity of service in proportion to the cost of service.<sup>4</sup>

The Bluff Creek LNG Facility proposed in this docket will cost \$185,000,000<sup>5</sup>, not including allowance for funds during construction, to be paid by all WE-GO customers over an expected 40 year life<sup>6</sup> of the project. WE-GO asserts the facility will deliver approximately 100,000 dekatherms per day (Dth/day) of capacity when operated at full capacity. In my view, the record indicates that this cost and level of capacity is likely to exceed future requirements, thus increasing the cost to WE-GO ratepayers unreasonably above the value the facility will provide.

A key factor in my decision is that just last year in 2020, the Commission approved the Lakeshore Lateral pipeline project in docket 6630-CG-138. That project will add 77,000 Dth/day of natural gas delivery capacity to WE-GO's southeastern Wisconsin customers.

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<sup>3</sup> Wis. Stat. § 196.49(3)(b)2

<sup>4</sup> Wis. Stat. § 196.49(3)(b)3

<sup>5</sup> Direct-WEGO WG-O'Connor-14; Ex.-WEGO WG-Application-70, Table 4-1.

<sup>6</sup> Hr'g Tr. 85:14

As a condition of approval in 6630-CG-138, WE-GO must inspect the existing storage tank at the Oak Creek LNG facility and verify its ability to provide capacity in future years. However, in this docket, WE-GO assumes that the Oak Creek LNG facility will need to be retired and thus assumes zero capacity at that facility. I do not believe that conclusion is supported by the record. The Oak Creek LNG facility's inspection has not yet occurred and because of that, arguments that the facility would not be in service in future years were not persuasive.

In this docket, WE-GO states the need for an additional capacity in the near future, based upon the confidential information supplied in the application, Table 2-1 at page 43. However, the record contains ample evidence that three factors could substantially reduce or even eliminate WE-GO's need:

- Some of the anticipated new commercial and industrial load may be overstated or perhaps not materialize at all, which would reduce WE-GO's need for capacity as explained in confidential testimony.<sup>7</sup>
- Currently available demand-side solutions could shrink the projected shortfall as described in confidential testimony<sup>8</sup>.
- The potential for the Oak Creek LNG Facility to remain in service after its inspection, as described above.<sup>9</sup>

Any combination of these factors substantially reduces the need for the Bluff Creek LNG Facility, and if some winter peaking needs remain, a right-sized, less expensive solution could be

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<sup>7</sup> Direct-SC-Hopkins-cr-39

<sup>8</sup> Direct-SC-Hopkins-cr-39

<sup>9</sup> The peak day capacity of the existing Oak Creek LNG Facility is confidential in this record; I am omitting it so the entirety of this writing can remain public.

delivered instead of the \$187,000,000 LNG facility proposed here. If all three of these factors come to pass, the facility will not be needed at all.

For these reasons, I dissent from the Commission's decision to grant a Certificate of Authority for the Bluff Creek LNG Facility, and would have instead ordered WE-GO to (1) revise near-term C&I load forecasts to reflect the best available data regarding load growth, and (2) include the value of alternative options to meet the potential capacity gap.

### **Energy Priorities Law & Energy Efficiency Modeling**

I found the application in compliance with the Energy Priorities Law<sup>10</sup> in this case, but there is substantial room for improvement for future applicants to help the Commission more confidently issue permits on subsequent projects.

In this case, two related analyses would have been helpful. First, the calculation of how much natural gas is saved on peak days from the deployment of energy-efficient appliances, particularly furnaces. As Commission Staff Witness Mitch Horrie explained<sup>11</sup>, while Wisconsin's Focus on Energy program analyzes annual natural gas savings from installing higher-efficiency furnaces, the program does not calculate savings on peak days. In his testimony, Mr. Horrie points out that Iowa, as one example of a neighboring state with similar weather to Wisconsin, does calculate that factor, and that Iowa's Technical Reference Manual indicates that the savings on peak (i.e. the coldest) days are three times higher than for an average heating season day, since furnaces will be running more on those coldest days. Going forward, I recommend that Wisconsin explore assigning peak day natural gas savings factors for

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<sup>10</sup> Wis. Stat. §§ 1.12(4), 196.025(1)

<sup>11</sup> Rebuttal-PSC-Horrie, pages 3r to 5r

the Focus on Energy and other energy efficiency programs. It is likely that Focus on Energy undervalues the economic savings of natural gas efficiency measures because Focus assigns no value to their ability to reduce demand on peak days. As this docket shows, peak natural gas storage, at least in some areas of the state, is expensive.

Secondly, a more robust analysis under the Energy Priorities Law by applicants that includes information such as, but not limited to, the following would have been helpful to my review:

- What overall natural gas reduction improvements (measures) could be made in residential, commercial, and industrial buildings;
- How much natural gas those improvements would save on peak days in each home or facility;
- How many homes or facilities would need those improvements in order to offset the projected need for the proposed facility; and
- The estimated costs to implement those improvements.

Analyses like these can help the Commission understand whether any higher priority alternatives are cost-effective, technically feasible, and environmentally sound as required by the Energy Priorities Law. Wis. Stat. §§ 1.12(4), 196.025(1). If such alternatives aren't cost-effective, technically feasible, or environmentally sound, the Commission could at least be more confident issuing permits.