

**JUAN B. COLÁS**  
**CIRCUIT COURT, BR 10**

STATE OF WISCONSIN

CIRCUIT COURT

DANE COUNTY

CITIZENS UTILITY BOARD  
OF WISCONSIN, INC.  
16 N. Carroll Street, Suite 640  
Madison, Wisconsin 53703

Petitioner,

v.

PUBLIC SERVICE COMMISSION  
OF WISCONSIN  
610 North Whitney Way  
P.O. Box 7854  
Madison, Wisconsin 53707

Respondent.

**14CV1137**

Case No. \_\_\_\_\_

Case Code: 30607

Administrative Agency Review

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COUNTY CLERK OF CIRCUIT COURT.

CARLO ESQUEDA  
CLERK OF CIRCUIT COURT

**PETITION FOR REVIEW**

Petitioner Citizens Utility Board of Wisconsin, Inc. (CUB), by its undersigned attorney and pursuant to Wis. Stat. §§ 196.41 and 227.52, petitions this Court for review of the March 17, 2014 Final Decision of the Public Service Commission of Wisconsin (Commission) in Docket Nos. 6630-CU-101 and 6650-CG-235 (Final Decision). A true and correct copy of the Final Decision is attached as Exhibit A. In support of its petition, Petitioner states the following:

**PARTIES**

1. Petitioner CUB was established and incorporated pursuant to Wisconsin's non-stock corporation law Wis. Stat. ch. 181. A non-profit, non-stock corporation, CUB is a voluntary membership organization of Wisconsin residential, farm, and small business utility ratepayers. Its principal place of business is located at 16 N. Carroll Street, Suite 640, Madison,

Wisconsin. CUB filed a request to intervene and was granted full-party status by the Commission in Docket Nos. 6630-CU-101 and 6650-CG-235.

2. CUB is a nonprofit corporation within the meaning of Wis. Stat. § 181.0103(17) and a small nonprofit within the meaning of Wis. Stat. § 814.245(2)(c).

3. Respondent Public Service Commission is an administrative agency of the State of Wisconsin with its offices located at 610 North Whitney Way, Madison, Wisconsin. The Commission is charged with administering laws regulating public utilities in Wisconsin.

#### **VENUE**

4. Venue for this action properly lies in Dane County pursuant to Wis. Stat. § 227.53(1)(a)3, as CUB's principal office is located in Dane County.

#### **BACKGROUND**

5. Wisconsin Electric Power Company (WEPCO) is a public utility as defined in Wis. Stat. § 196.01, and is engaged in rendering electric service in its electric service territory in eastern Wisconsin and steam service in two areas of Milwaukee County, including the central business district of the city of Milwaukee.

6. The steam service that WEPCO provides to downtown Milwaukee is sourced solely from the Valley Power Plant located at 1035 West Canal Street in downtown Milwaukee.

7. The Valley Power Plant consists of two generating units and was built as a coal-fired cogeneration facility in 1968 and 1969. As a cogeneration facility, it simultaneously produces electricity and steam. The electricity is provided to the electric grid and the steam to nearly 450 customers in downtown Milwaukee that are served by WEPCO's downtown Milwaukee steam (DMS) utility. WEPCO has owned and operated the Valley Power Plant since it was constructed.

8. When WEPCO sought the Commission's approval to build the Valley Power Plant nearly a half-century ago, the Commission accepted that the primary purpose of the plant was the production of electricity. It also accepted that steam production for WEPCO's DMS utility was incremental to electricity production. As such, in 1971, the Commission allocated approximately 92 percent of the Valley Power Plant capital costs to WEPCO's electric utility and the remaining eight percent to WEPCO's DMS utility.

9. In the nearly five decades since WEPCO first sought Commission approval to build the Valley Power Plant, WEPCO built and acquired several more electric-only generating units to meet the growing needs of its electric utility. The Valley Power Plant is now the least electrically efficient and has the highest production costs of all of WEPCO's intermediate and large baseload generating facilities. As WEPCO's electric generating fleet has grown and newer units have replaced the older and less efficient Valley Power Plant, WEPCO's need to generate electricity from the Valley Power Plant has substantially diminished. During that same period, WEPCO has built no more steam facilities to meet the needs of its DMS utility. Today, the Valley Power Plant is the only facility serving WEPCO's DMS customers.

10. The roles of electric production and steam production at the Valley Power Plant have completely reversed since the two generating units were first constructed in 1968 and 1969. The Valley Power Plant is now being operated primarily as a steam plant, with electric output secondary.

11. A report prepared for WEPCO by one of its outside consultants and included in the record in Docket No. 6630-CU-101 states, "It is understood that the primary objective of the Valley Power Plant is to generate steam first and foremost."

12. The Valley Power Plant must be operated continuously, 8,760 hours per year, to meet steam demand in downtown Milwaukee.

13. On April 26, 2013, WEPCO applied to the Commission in Docket No. 6630-CU-101 for a Certificate of Authority to change the type of fuel firing the Valley Power Plant from coal to natural gas at a total gross project cost of approximately \$80 million.

14. In its application, WEPCO proposed an allocation of the total gross project capital costs that was identical to the allocation the Commission approved in 1971: \$73.4 million (92%) to WEPCO's electric utility and \$6.4 million (8%) to WEPCO's DMS utility.

15. Currently, when the Valley Power Plant is operated at a loss (i.e., when dispatch costs for the plant are higher than market revenues), the plant incurs "uneconomic dispatch costs."

16. If the Valley Power Plant remained coal-fired rather than converting to gas-fired, WEPCO estimates the present value of uneconomic dispatch costs over the remaining expected life of the facility to be \$202 million.

17. When the Valley Power Plant is converted from coal-fired to gas-fired, WEPCO estimates the present value of uneconomic dispatch costs over the remaining expected life of the facility to be \$185 million.

18. WEPCO incurs uneconomic dispatch costs in its operation of the Valley Power Plant because the plant must always generate steam for its DMS utility. If there were no steam customers, WEPCO's electric utility could avoid the uneconomic dispatch costs that will remain after the Valley Power Plant is converted from coal-fired to gas-fired.

19. In Docket No. 6630-CU-101, WEPCO proposed to allocate one hundred percent of the uneconomic dispatch costs to electric customers.

20. On March 17, 2014, the Commission granted WEPCO a Certificate of Authority to convert the Valley Power Plant from coal-fired to gas-fired. In the Final Decision, the Commission allocated 92 percent of project capital costs to WEPCO's electric utility and eight percent of the project capital costs to WEPCO's DMS utility. The Commission also determined that WEPCO's electric customers should bear 100 percent of the Valley Power Plant's uneconomic dispatch costs.

### **JURISDICTION AND CLAIMS**

21. This Court has jurisdiction over this action pursuant to Wis. Stat. § 227.53(1)(a).

22. Wisconsin law prohibits rates that are "unjust, unreasonable, insufficient or unjustly discriminatory or preferential or otherwise unreasonable or unlawful." Wis. Stat. § 196.37.

23. Among CUB members are residential and small business electric customers of WEPCO who have a substantial interest in the costs the Commission authorizes WEPCO to collect from electric customers. CUB's mission is to advocate on behalf of residential, farm and small business ratepayers in Wisconsin for reliable, affordable and sound utility service. The Commission's decision to require WEPCO's electric customers to pay 92 percent of the capital costs for converting the Valley Power Plant from coal-fired to gas-fired and all of the uneconomic dispatch costs resulting from operating the Valley Power Plant to provide steam for steam customers harms CUB's members. The approved allocation is unjust, unreasonable, and unjustly discriminatory and preferential in that it fails to recognize that the primary objective of the Valley Power Plant has reversed, and that requiring electric customers to pay nearly all of the costs for a facility whose primary purpose is to generate steam causes electric customers to

unduly subsidize steam customers. Thus, CUB is aggrieved by the Commission's allocation decision.

24. Pursuant to Wis. Stat. § 227.57(6), the Commission's decision to allocate 92 percent of the Valley Power Plant's conversion capital costs to WEPCO's electric customers lacks evidentiary support in the record and fails to account for the fact that the Valley Power Plant now operates primarily for the benefit of WEPCO's DMS utility and not for its electric utility.

25. Pursuant to Wis. Stat. § 227.57(6), the Commission's determination to allocate 100 percent of the uneconomic dispatch costs to electric customers also lacks evidentiary support in the record and fails to account for the uncontroverted evidence that those costs are caused solely by the need to provide WEPCO's DMS utility customers with steam.

26. Pursuant to Wis. Stat. §§ 227.57(5), (7), and (8), the Commission erred by approving an unlawful, unreasonable, unjustly discriminatory and unjustly preferential allocation of capital costs and uneconomic dispatch costs between WEPCO's electric and steam customers.

27. The Commission's decision was not "substantially justified" within the meaning of Wis. Stat. §§ 227.485 and 814.245.

### **RELIEF REQUESTED**

WHEREFORE, CUB requests that the Court grant the following relief:

1. An order declaring that the Commission's decision was arbitrary, capricious, an abuse of discretion, a departure from established practice and policy with insufficient explanation, and unsupported by the administrative record.

2. An order setting aside, reversing, and vacating the Commission's March 17, 2014 Final Decision allocating 92 percent of the Valley Power Plant conversion costs and 100 percent of the plant's uneconomic dispatch costs to WEPCO's electric customers.

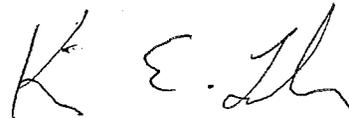
3. An order remanding the case to the agency for further examination and action consistent with the law and with the Commission's responsibilities.

4. An award of CUB's fees and costs pursuant to Wis. Stat. § 814.245.

5. Whatever additional relief is appropriate, irrespective of the form of this petition, pursuant to Wis. Stat. § 227.57(9).

Dated this 16<sup>th</sup> day of April, 2014.

By:



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**SERVICE DATE**  
**Mar 17, 2014**

**EXHIBIT A**

PSC REF#:200566

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

Application of Wisconsin Electric Power Company for Authority to Convert the Valley Power Plant from a Coal-Fired Cogeneration Facility to a Natural Gas-Fired Cogeneration Facility 6630-CU-101

Application of Wisconsin Gas LLC, as a Gas Public Utility, for Authority to Install and Place in Service Facilities to Supply Natural Gas to Wisconsin Electric Power Company's Valley Power Plant, in the City of Milwaukee, Milwaukee County, Wisconsin 6650-CG-235

**FINAL DECISION**

On April 26, 2013, pursuant to Wis. Stat. § 196.49 and Wis. Admin. Code chs. PSC 112 and 140, Wisconsin Electric Power Company (WEPCO) submitted an application for a Certificate of Authority (CA) to convert the coal-fired cogeneration Valley Power Plant (Valley) to a gas-fired cogeneration facility at an estimated cost of \$62,000,000, excluding Allowance for Funds Used during Construction (AFUDC). Also on April 26, 2013, Wisconsin Gas LLC (WG) submitted a companion application for a CA to install facilities to supply natural gas to Valley at an estimated cost of \$3,708,000, excluding AFUDC. Both projects are located in the city and county of Milwaukee, Wisconsin, and are essentially a unified construction project. Hereafter, the term "project" denotes both applicants' construction work, unless otherwise expressly stated or required by context.

A CA is granted to WEPCO for the conversion of Valley from coal to natural gas fuel, subject to conditions, at an estimated cost of \$62,000,000, excluding AFUDC. A CA is also granted to WG for necessary natural gas main extensions, service laterals, and federally required service regulators, subject to conditions, at an estimated cost of \$4,258,000, excluding AFUDC.

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Dockets 6630-CU-101 and 6650-CG-235

## Introduction

The Commission issued a joint Notice of Proceeding for both of these dockets on June 21, 2013, and a Notice of Prehearing Conference on June 25, 2013. A prehearing conference was held on July 17, 2013. Aurora Sinai Medical Center, the Citizens Utility Board (CUB), Marquette University, Metropolitan Milwaukee Association of Commerce, the city of Milwaukee, Milwaukee County, American Transmission Company LLC (ATC) and the Wisconsin Industrial Energy Group requested to intervene in these dockets and were granted party status.

The prehearing conference memorandum of August 26, 2013, stated the issues and reflected the instruction the Commission made at its open meeting of August 12, 2013, to add the issue of electric/steam cost allocation. The issues are as follows:

1. Do these projects comply with the standards applicable to an application to convert a coal-fired cogeneration facility to a natural gas-fired cogeneration facility and to construct the necessary natural gas facilities pursuant to Wis. Stat. § 196.49 and Wis. Admin. Code chs. PSC 4, 112, 133, and 140?
2. What is the reasonable allocation of project costs for the purpose of subsequent recovery in electric rates and steam rates?

The need to convert Valley and for the related natural gas extensions and laterals became largely uncontested or noncontroversial by the conclusion of the hearing and briefing, except for matters relating to service regulators on WG's proposed work. The central disputed issue for Commission resolution was the appropriate allocation of capital and other operating costs

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between WEPCO's electric customers and its Downtown Milwaukee Steam (DMS) customers<sup>1</sup> served by Valley.

Commission staff prepared a draft Environmental Assessment (EA) in cooperation with Wisconsin Department of Natural Resources (DNR) staff. The final EA was issued on September 26, 2013. The EA concluded that the preparation of an Environmental Impact Statement (EIS) was not warranted.

This case was treated as a Class 1 contested case proceeding. Separate Notices of Hearing were mailed on October 18 and November 4, 2013. A joint technical hearing and public hearing was held on November 4, 2013, in Madison. A second public hearing was held in Milwaukee on November 14, 2013. Both Notices of Hearing solicited testimony and comments on the proposed project from members of the public and from parties admitted to the proceeding. Filings of briefs and a decision matrix incorporating Commission staff comments and party positions on the issues were completed on January 24, 2014. The Commission considered the applications and the evidentiary record at its open meeting of January 30, 2014.

As part of its open meeting discussion on January 30, 2014, the Commission reviewed Commission staff's proposal for the inclusion of four service regulators on WG's proposed natural gas lateral facilities, estimated to cost an additional \$550,000. WG's formal position with respect to Commission staff's proposal for additional service regulators was unclear on the record. The Commission determined to give WG an opportunity to request a limited reopening of the record to submit additional evidence as to whether service regulators are necessary for the

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<sup>1</sup> DMS customers who were parties in this proceeding consist of Aurora Sinai Medical Center, Marquette University, and Metropolitan Milwaukee Association of Commerce. Other DMS customers also testified in this proceeding.

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natural gas lateral facilities between the mains and Valley, and whether WG would prefer pursuing a waiver from federal regulatory authorities. The Commission issued a Notice of Opportunity to Request Limited Reopening to WG on January 31, 2014. On February 7, 2014, WG filed a letter indicating that it did not wish to pursue a waiver and that a limited reopening was unnecessary.

The parties, for purposes of review under Wis. Stat. §§ 227.47 and 227.53, are listed in Appendix A.

## **Finding of Facts**

1. WEPCO is an electric public utility, pursuant to Wis. Stat. § 196.01(5)(a), engaged in rendering electric service in Wisconsin and steam service in two areas of Milwaukee County, including the central business district of the city of Milwaukee.
2. WEPCO proposes to convert the fuel source of Valley, a cogeneration facility for both steam and electricity, from coal to natural gas. The total estimated cost is \$62,000,000, excluding AFUDC. WEPCO proposes to commence construction in mid-2014.
3. WG is a natural gas distribution public utility, pursuant to Wis. Stat. § 196.01(5)(a), engaged in the supply and distribution of natural gas in various areas of Wisconsin, including in the Milwaukee area.
4. WG proposes to construct 1,800 feet of high-pressure steel mains and related laterals to the premises to serve Valley at a total estimated cost of \$3,708,000, excluding AFUDC.
5. It is reasonable, given WG's response to the Notice of Opportunity to Seek Limited Reopening, to find that four additional service regulators, ordinarily required by federal

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regulations, shall be included in the natural gas lateral facilities between WG's mains and Valley at an additional estimated cost of \$550,000.

6. It is reasonable to approve WEPCO's request to accrue AFUDC on 100 percent of construction work in progress (CWIP) for the conversion from coal to gas project at a rate of 9.09 percent, and WG's request to accrue AFUDC on 50 percent of CWIP for the construction of natural gas main extensions and related laterals associated with this conversion at a rate of 8.92 percent.

7. Energy conservation, renewable resources, or other energy priorities listed in Wis. Stat. §§ 1.12 and 196.025 are not cost-effective, technically feasible alternatives to the proposed projects.

8. The project approved by this Final Decision is necessary to provide adequate and reliable service to present and future electric customers and DMS customers.

9. The project, as authorized by this Final Decision, will not substantially impair efficiency of service of either WEPCO or WG or provide facilities unreasonably in excess of their respective probable future requirements. In addition, when placed in operation, the WEPCO and WG components of the projects will increase the value or available quantity of their respective services in proportion to their individual costs of service.

10. No unusual circumstances suggesting the likelihood of significant environmental consequences are associated with the project as defined by Wis. Stat. § 1.11.

11. Authorization of the project in both of its component parts is in the general public interest and required by the public convenience and necessity.

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12. 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.

13. It is reasonable and in the public interest to maintain for ratemaking purposes the current allocation of approximately 92 percent of project capital costs to WEPCO's electric customers and 8 percent of capital costs to its DMS customers, as derived from currently effective Commission Order(s) applicable to Valley. It is also reasonable to maintain the current fuel cost allocation.

## **Conclusions of Law**

1. The Commission has jurisdiction under Wis. Stat. §§ 1.11, 1.12, 196.025, 196.49, other relevant provisions of Wis. Stat. ch. 196, and Wis. Admin. Code chs. PSC 4, 112, 133, and 140 to approve the issuance of CAs to WEPCO and WG.

2. The Commission has jurisdiction under Wis. Stat. §§ 196.02(1) and (7), 196.06, 196.10, 196.20, 196.37, 196.60, other relevant provisions of Wis. Stat. ch. 196, and related regulations to make determinations regarding the assignment and allocation of costs to and among utility accounts for purposes of ratemaking, the implementation of other regulatory policies in the public interest, and to act or refrain from acting as provided herein.

## **Opinion**

### **Background**

Valley was built as a cogeneration facility in 1968 and 1969. It provides electricity for WEPCO's electric customers and steam for its downtown Milwaukee steam customers. Valley has four boilers that are capable of producing 280 megawatts of electricity and 1,800,000 pounds

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of steam per hour to the district heating system. The original main purpose of Valley was the production of electricity to serve Milwaukee area load, with steam service a secondary output. Over the years, though the frequency with which Valley is economically dispatched by the Midcontinent Independent System Operator, Inc., may have changed, the underlying dual functions of Valley, that is, electrical generation and steam production, have remained.

## **Project Description and Costs**

WEPCO proposes to convert Valley's fuel source from coal to natural gas.

As a coal-fired power plant, Valley is subject to various federal environmental regulations. WEPCO anticipates future air quality regulations to be more stringent than existing laws. As such, Valley would require additional pollution controls to meet these new requirements. In particular, the federal Mercury and Air Toxics Standards Rule for Power Plants (MATS) has a compliance deadline of April 16, 2015, subject to the permitting authorities' discretion to grant another year of extension. In addition, the one-hour National Ambient Air Quality Standard (NAAQS) for sulfur dioxide (SO<sub>2</sub>) will likely require that Valley reduce its SO<sub>2</sub> emissions. While the exact compliance date for the SO<sub>2</sub> NAAQS is not certain, the U.S. Environmental Protection Agency's (EPA) initial implementation schedule would have required compliance with the NAAQS at Valley in 2017. In addition, anticipated revisions by the EPA to its existing ozone standard will likely require further reductions in nitrogen oxide emissions from Valley.

To address these issues, WEPCO in 2005 began considering how to: (1) reduce uneconomic dispatch of Valley; (2) reduce operating costs; (3) satisfy increasingly stringent

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environmental regulations; and (4) economically achieve environmental compliance. WEPCO

developed four alternatives in addition to converting Valley from coal to natural gas. These were:

- Continue to power Valley with coal, but install Dry Sorbent Injection (DSI) to ensure compliance with MATS.
- Continue to power Valley with coal, but install a full Air Quality Control System, including selective catalytic reduction and SO<sub>2</sub> scrubber.
- Retire Valley, build new transmission facilities to maintain electric system reliability and build new natural gas-fired package boilers to supply steam only.
- Convert Valley to natural gas, but reduce electric output by adding equipment to allow for steam production without the simultaneous production of electric power.

WEPCO's preferred natural gas repowering alternative included the following elements:

- Removing the coal burners and associated coal piping from the existing four boilers;
- De-energizing and decommissioning coal conveyors, coal silos, coal mills, coal feeders, the bottom ash removal system, and the fly ash removal system;
- Installing new natural gas burners in each of the four boilers;
- Installing a natural gas header and associated valves to supply fuel to the new gas burners;
- Installing new flue gas recirculation (FGR) fans and associated ductwork and electrical work for use in the control of emissions from the boilers;
- Sealing each boiler after removal of existing burners, soot blowers, and bottom seal equipment;

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- Installing boiler let-down valves to reliably support steam supply to the district heating system under single steam turbine operation; and
- Updating the control system to integrate new equipment into Valley's distributed control system.

To provide the proposed natural gas supply to Valley, WG will install approximately 1,500 feet of 24-inch steel mains and 300 feet of 24-inch steel service lateral piping. WG will also upgrade existing pressure regulation, which reduces operating pressure from 175 pounds per square inch (psig) to 100 psig, replace existing six-inch regulators with eight-inch regulators, and completely replace existing station piping, including inlet and outlet fire valves. WG also will install a high-pressure meter set at Valley. The meter set will be designed to accommodate firm demand plus additional peak demand during summer months.

During the proceeding, Commission staff proposed the addition of four service regulators as required by 49 C.F.R. § 192.197(c) of the federal pipeline regulations. This code provision requires, unless a waiver is sought and received, the use of pressure regulating devices where the maximum operating pressure exceeds 60 psig. WG estimated this modification would cost an additional \$550,000. WG has elected not to seek a waiver of this requirement. This is a federal safety code requirement, and the record shows no dispute about the proposed additional cost. While the costs are not insignificant, installation of the pressure regulating devices are legally required for public safety reasons. As such, WG shall install these regulators as a condition of approval of its CA.

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WEPCO's cost of conversion from coal to gas is estimated at \$62,000,000, excluding AFUDC. WG's estimated total cost is \$4,258,000, including \$550,000 for the additional regulators, but excluding AFUDC. The detailed costs are listed below:

## WEPCO's Cost Estimates

Structures and improvements	\$9,000,000
Boiler plant equipment	46,200,000
Accessory electric equipment	5,600,000
Miscellaneous power plant equipment	1,200,000
<b>Total</b>	<b>\$62,000,000</b>

In addition, AFUDC (on 100 percent of CWIP) is estimated at \$10,400,000 total for electric and steam. WEPCO requested approval to accrue AFUDC on 100 percent of CWIP for this project at a rate of 9.09 percent consistent with the Commission's authorized treatment of major electric generation construction projects in its Final Decision issued December 21, 2012, in WEPCO's most recent full rate proceeding in docket 5-UR-106. No party contested WEPCO's request.

Similarly, WG estimated costs are as follows:

## WG's Cost Estimates

WG labor	\$424,500
Material	1,855,700
Contractor	1,638,800
Other	339,000
<b>Total</b>	<b>\$4,258,000</b>

In addition, WG intends to accrue an estimated \$62,000 for AFUDC on 50 percent of CWIP at 8.92 percent, consistent with standard accounting treatment for non-major construction projects and at the interest rate authorized in the Commission's Final Decision in the above-stated rate case docket.

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## **Project Need**

The Commission grants certificates of authority under Wis. Stat. § 196.49(3)(b). This statute authorizes the Commission to refuse to certify a project if it appears that 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 commission, in the fixation of rates, of such consequent increase of cost of service.

In addition, the Commission may attach “such terms and conditions as will ensure that the project meets the requirements of [Wis. Stat. § 196.49].” Wis. Stat. § 196.49(3)(c).

As for the efficiency criterion, no party contested that the projects would impair the efficiency of WEPCO’s provision of electric and steam service, or the efficiency of WG’s services to its natural gas customers. The switch to natural gas will simplify Valley’s operations and reduce pollution consistent with upcoming environmental compliance standards.

The second and third criteria engendered more debate among the parties. Although all four alternatives are technically feasible and environmentally sound, the proposed conversion of Valley to natural gas is the most cost-effective option. In addition, the fuel conversion option is the most environmentally benign alternative.

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The table below is a summary of WEPCO's calculation of the conversion project's Net Present Values (NPV) and shows how the different alternatives compare to the gas conversion base case in 2016 dollars.

<b>Case</b>	<b>2016 NPV (000s)</b>	<b>Difference from Base Case (000s)</b>
Gas Conversion (base case)	\$814,516	
Coal DSI (2-A)	\$872,792	\$58,276
Coal with AQCS (2-B)	\$1,357,816	\$543,300
Package Boilers in 2018 (3)	\$1,490,711	\$676,195
Gas Conversion Minimum Generation (4)	\$908,217	\$93,701

Commission staff concluded that the conversion project proposed by WEPCO: (1) is the lowest cost option; (2) provides benefits in avoiding new generation and transmission in the future; (3) has no negative impact upon reliability of steam generation and preserves necessary electric reliability; and (4) materially enhances the economic viability of WEPCO's steam service.

Neither Commission staff nor any party contested the evidence that the proposed project satisfies the rules in Wis. Admin. Code chs. PSC 112 and 140. The Commission concludes that these requirements have been satisfied.

The parties and Commission staff agree that something needs to be done at Valley. Continuing to run it as is, is not viable. It is a 45 year old plant without modern pollution controls. It will need mercury upgrades as soon as 2015, no later than 2016, with the likelihood of significantly more expensive SO<sub>2</sub> controls shortly thereafter if coal continues as the fuel source at Valley. It is also clear that Valley's 450 steam customers, some of whom participated in this proceeding, will continue to need the steam that Valley produces. For those who participated in this proceeding, the record is clear there are no real, viable alternatives to steam.

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Additionally, Valley provides local electric reliability for the area. Converting Valley to natural gas, as proposed here by the applicants, is the best choice. It eliminates the need for expensive pollution control upgrades, keeps steam flowing to the area's steam customers, avoids potentially more costly transmission upgrades, and continues to provide local electric reliability benefits. Further, as a whole, the conversion accomplishes these benefits at the least cost when compared to the considered alternatives. Accordingly, the Commission finds that the public convenience and necessity warrants grant of the CA to WEPCO for the conversion of Valley from coal to natural gas fuel.

The Commission also finds that WG's proposed construction of the related natural gas extension to Valley satisfies the requirements of Wis. Stat. § 196.49(3) and Wis. Admin. Code ch. PSC 133. This CA treats WG's application as amended to include four service regulators, at an additional cost of \$550,000, as required by federal pipeline safety regulations. Because WG accepts the proposal of Commission staff and DNR to impose environmental protection conditions regarding storm water runoff and erosion control matting, the CA for WG shall include those conditions. The proposed conditions are prudent and in the public interest. In view of Valley's close proximity to a waterway, the conditions will help protect water quality while at the same time affording additional protection against further degradation of the limited species habitat that is available.

## **Allocation of the Costs of the Proposed Project**

The issue that generated the most controversy in this case was the allocation of the capital and operating costs at Valley, including the costs of uneconomic dispatch, between WEPCO's electric customers and its steam customers.

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When Valley was originally constructed, the Commission accepted the premise that the primary purpose of the plant was the production of electricity and that the production of steam for the steam system was secondary. Therefore the Commission authorized an allocation in which almost all of the capital costs of the plant were allocated to the production of electricity. Only the incremental costs of the plant that were installed in order to provide the capability to produce steam were allocated to the steam function. This resulted in a capital cost allocation in which approximately 92 percent of the plant was attributed to electric production and 8 percent to the production of steam. Fuel costs were also allocated on the premise that only incremental fuel costs should be allocated to the steam output. These allocations have remained in place since that time and have been applied to new capital additions which have been installed at the plant.

WEPCO proposed that the cost allocation that had been originally approved for Valley should continue to be used for the capital costs of the repowering project. WEPCO argued that if Valley were retired, significant investment in new and upgraded transmission facilities would be required and that repowering Valley was a less costly option for electric ratepayers than installing this new transmission, even if the existing cost allocation was maintained. WEPCO's contention that new and upgraded transmission facilities would be required if Valley were to be retired was supported by ATC and Commission staff. WEPCO also argued that repowering Valley would provide a benefit to electric ratepayers by reducing future needs for WEPCO to build new generating capacity and that it could sell the excess generating capacity from Valley on the wholesale market in the meantime. WEPCO also supported continuation of the current fuel cost allocation. WEPCO also proposed that electric customers should continue to bear the

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uneconomic dispatch costs that result from the operation of Valley because net benefits of Valley to electric ratepayers more than offset these costs.

DMS customers and other steam customers supported the repowering option and argued that the existing cost allocation should be maintained. They argued that there is no reason to change the allocation as the plant was originally built to provide electric generation and that remains the case now. They also argued in support of WEPCO's position that repowering Valley and keeping it operating would be cheaper for electric ratepayers than building new transmission facilities. The DMS customers also testified that they had experienced increases in steam rates during the past several years and that changing the cost allocation would result in significant additional increases in steam rates.

CUB urged the Commission to reject WEPCO's proposal to maintain the current cost allocation. CUB argued that Valley was now primarily necessary to produce steam for the steam distribution system, not for electric production. CUB argued that the transmission studies performed by ATC were flawed because they failed to identify potential generator re-dispatch solutions. CUB also contended that WEPCO's assertions that Valley provided benefits to electric ratepayers because it would reduce the need for WEPCO to build new generation and would provide capacity sales revenues were inflated. CUB argued that electric ratepayers should pay no more than 22 percent of the capital costs of the repowering. CUB also contended that it would be unfair for electric customers to continue to bear the uneconomic dispatch costs of the plant because these costs were incurred solely due to the necessity to operate Valley on a daily basis to produce steam.

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Commission staff testified that, even following a repowering, significant risks associated with Valley's continued operation could warrant a change in the current capital and fuel cost allocations. These risks are due to the existence of uncertain and volatile uneconomic dispatch costs and because an old plant such as Valley would likely incur high maintenance costs and, thus, would likely require equipment additions and replacements in the future. Commission staff was also skeptical that the capacity from Valley had significant value on the wholesale market or that delaying the need for generating capacity into the 2020s is a significant benefit for ratepayers now because substantial uncertainty surrounds a need so far in the future.

The Commission finds that it is reasonable to maintain the existing capital and fuel cost allocations at Valley. It is clear from the analysis done by ATC that Valley is needed for reliability reasons and that the costs of the transmission that would be needed if Valley were retired would be very high. ATC estimates, and Commission staff concurs, that if Valley were retired approximately \$160 to \$180 million in transmission would have to be built to maintain reliability. The costs that electric ratepayers will pay for Valley after repowering, even under the existing cost allocations, will be more than offset by the transmission costs that electric ratepayers would have to bear if Valley were to be retired. Valley is clearly needed to serve the concentration of electric customer load in Milwaukee, and it is important to have available as an electric generation resource to allow ATC, for example, to perform system maintenance all while maintaining electric system reliability. The alternative dispatch scenarios proposed by CUB are cost prohibitive and impractical, and are not realistic alternatives to replace transmission upgrades for the elimination of Valley during higher load periods. In sum, the Commission is not persuaded by the arguments advanced attempting to show that Valley is not needed for

# EXHIBIT A

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electric reliability in Milwaukee or that WEPCO customers would be better off if Valley were retired. Valley has been and continues to be essential to maintaining electrical reliability, and this need supports maintaining the existing cost allocation.

Electric customers will also benefit because they will avoid the need to pay for new generating capacity additions in the future. While the record contains differing information about the value of avoided capacity, even the most conservative standard used by Commission staff confirms that this project is the most cost effective way to proceed. In short, electric ratepayers will be better off if Valley is repowered, even if the existing cost allocations are retained, than they would be if Valley were to be retired.

In addition, many steam customers testified that the increase in steam rates that would result from a change in the cost allocations would have a detrimental effect on them individually, on downtown Milwaukee as a whole, and on persons currently employed or seeking employment by a steam customer. Many of these customers are large governmental, educational, institutional, and business customers that are an integral part of downtown Milwaukee. Even under the existing cost allocation, these customers will experience an increase in steam rates. The Commission finds that maintaining the economic health of downtown Milwaukee is an important factor that must be taken into consideration in this case.

The Commission also finds that current allocation of uneconomic dispatch costs is reasonable. Conversion is the lowest-cost option for electric ratepayers, even if they continue to pay for the uneconomic dispatch costs. Conversion will reduce the number of gigawatt hours of uneconomic dispatch by 80 percent, lower rates for electric ratepayers, improve the environmental profile of the plant, and avoid the costs to construct new transmission.

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Even though the primary purpose of Valley may no longer be the production of electricity, Valley still plays a significant role in maintaining electric reliability. The Commission finds that the underlying dual purposes Valley serves have not changed significantly enough to warrant a change in how these project costs should be allocated, especially considering the benefits electric customers will receive from the conversion when compared to retirement and the need to maintain the economic health of downtown Milwaukee.

Commissioner Callisto dissents on the allocation of project costs.

## **Environmental Review and Compliance with the Wisconsin Environmental Policy Act**

It has been determined that the project certification is a Type 2 action under Wis. Admin. Code § PSC 4.10(2) that required the preparation of an EA to determine whether an EIS is necessary under Wis. Stat. § 1.11. Commission staff prepared a draft EA in cooperation with DNR staff. The final EA was issued on September 26, 2013. The EA concluded that the preparation of an EIS was not warranted. The Commission finds that overall environmental impact of the project would be positive, and therefore concurs that no EIS is required.

Conversion to natural gas would ensure compliance with the federal MATS rule for power plants and significantly reduce air emissions, such that no additional air emission controls are expected to be needed when the NAAQS for SO<sub>2</sub> is tightened. WEPCO anticipates reductions in air emissions of up to 99.97 percent. The proposed project may also prepare the plant well for a more stringent ozone standard as well. Greenhouse gas emissions are expected to be reduced by 80 percent, and could be lower if Valley is run at less than a 15 percent electric generating capacity factor, as anticipated.

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Valley's current operation is governed by a Wisconsin Pollutant Discharge Elimination System (WPDES) permit issued by the DNR. The proposed project would not have any significant effect on the WPDES permit. A permit modification is not necessary to address the elimination of pollutant sources. Conversion to natural gas would not affect any final effluent limits or compliance schedules. The next permit, which is up for reissuance within five years, would be updated to reflect the change in fuel, and the wastewater sources that are eliminated would no longer be included in the permit.

Although the maximum capacity of the circulating cooling water system at Valley will not be changed by the completed fuel conversion project, cooling water usage is expected to either go down or remain the same. Cooling water usage is related to the steam condensing needs for electric generation to meet steam demand and the minimum electric load of the plant. As noted above, WEPCO anticipates that the minimum electric load on the plant will be reduced when the project is completed.

Converting the plant from coal to natural gas would eliminate some discharge sources and reduce wastewater treatment requirements. Conversion would eliminate coal pile runoff, yard runoff, ash transport water, and equipment wash wastewaters that convey coal or ash, thereby removing a potential source of mercury. The one transformer at the power plant with polychlorinated biphenyls (PCB) is associated with the coal handling equipment that will be replaced as part of the project, thereby eliminating a possible source of PCB contamination. Solids generated by the wastewater treatment system would continue to be shipped to a WEPCO landfill for disposal.

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The only soil-disturbing activities associated with this project are related to WG's natural gas system expansion, which would require a storm water construction permit from the DNR.

An erosion control plan would be included in the design process, and best management practices for storm water and erosion control would be used during construction.

WEPCO's proposed project would continue to ensure the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife in the Menomonee River and the larger Milwaukee harbor estuary. Thermal and pollutant discharges would be expected to decline after the conversion to natural gas. Net effects of the thermal discharge on the survival, migration, reproduction, and growth of fish species, if any, would be confined to a small portion of the estuary and would occur infrequently.

The project area is located within a developed landscape with few naturally-occurring communities. Although several rare species were identified as occurring in the project area or within one mile of its boundaries, no impacts to any of these species would be expected due to the exact location and nature of the proposed work, a lack of suitable habitat, and if strict and specific erosion and siltation control measures are implemented.

A formal Endangered Resources Review was completed by DNR. The review recommended: (1) implementation of strict erosion and siltation controls in an effort to minimize storm water runoff into nearby waterways; and (2) use of erosion control matting that will have the least impact on snake species (*i.e.*, matting that contains strands that move independently). The applicants raise no objections to adopting these two conditions.

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A search of the Wisconsin Historic Preservation Database, maintained by the Wisconsin Historical Society, revealed no known archeological, burial, or other historic resources present in the proposed route of the natural gas pipeline.

Removal of coal handling and storage at the Valley site would eliminate the possibility of coal dust blowing from the coal pile. Other than the elimination of the coal pile and coal handling equipment, there would be little change in the external appearance of the plant.

Noise levels at the plant after the conversion would be less than or equivalent to those resulting from current plant operations. Elimination of exterior coal handling equipment would result in a reduction of noise from that source. New FGR fans to be installed inside the plant should not measurably increase exterior noise levels. New gas metering equipment would be installed outdoors and away from adjacent property lines.

The current coal-burning operation produces bottom ash and fly ash. Both the bottom ash and fly ash are trucked to the WEPCO Pleasant Prairie Power Plant and re-burned in the boilers. The conversion to gas fuel would eliminate this truck traffic, which ranges between 10 and 60 truckloads each week.

The power plant conversion and natural gas system extension would create temporary visual and noise impacts during construction, while longer-term aesthetic impacts would be reduced due to the removal of the plant's coal pile. Gas main installation could temporarily create dusty conditions and short-term traffic congestion. The fuel switch from coal to natural gas would reduce discharges of air and water pollutants. WEPCO's electric generation costs would be cut due to a reduction in uneconomic dispatch.

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In summary, the overall environmental impact of the project would be positive. The exact reduction in emissions would depend on the amount of electricity generated at the site. Wastewater discharges related to the coal pile runoff would be eliminated.

## **Certificates**

The Commission grants WEPCO a CA to convert Valley from a coal-fired cogeneration facility to a natural gas-fired cogeneration facility, as described in the application, at a total cost of \$62,000,000, excluding AFUDC.

The Commission grants WG a CA to install and place in service facilities necessary to supply natural gas as fuel for Valley, as described in the application, and with required additional service regulators as discussed herein, at an estimated cost of \$4,258,000, excluding AFUDC.

This CA is subject to conditions, as discussed above.

## **Order**

1. WEPCO is authorized to construct and place in operation facilities converting Valley from coal to natural gas at a total estimated cost of \$62,000,000, excluding AFUDC. WG is authorized to construct and place in operation the natural gas mains and laterals to Valley at a total estimated cost of \$4,258,000, excluding AFUDC.

2. WG shall include four service regulators as required by 49 C.F.R. § 192.197(c) as in its construction.

3. The proposed construction work of WEPCO and WG, and the addition of service regulators to the WG project, as modified by this Final Decision, are approved.

4. WEPCO's request to accrue AFUDC on 100 percent of CWIP on the conversion project at a rate of 9.09 percent is approved. WG's request to accrue AFUDC on 50 percent of

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the CWIP for the construction of natural gas main extensions and related laterals associated with this conversion at a rate of 8.92 percent is also approved.

5. Each applicant shall secure all its necessary federal, state, and local permits prior to beginning construction.

6. Should the scope, design, or location of either part of the project change significantly, or if it is discovered or identified that any project part cost, including *force majeure* costs, may exceed the estimated cost of that part by more than 10 percent, the relevant applicant shall promptly notify the Commission as soon as it becomes aware of the possible change or cost increase.

7. To minimize storm water runoff into nearby waterways that could have potential negative impacts to fish and other rare aquatic species, WG during construction shall implement strict erosion and siltation controls.

8. During construction, WG shall use erosion control matting that will have the least impact on snake species (*i.e.*, matting that contains strands that move independently).

9. After construction, WEPCO and WG shall each submit any geographic information regarding facility or system locations, in such format as may be required, to any federal, state, or local unit of government requiring facility or system location information.

WEPCO and WG shall provide this data to the Commission in the next quarterly report after the information becomes available.

10. Beginning with the quarter ending June 30, 2014, and within 30 days of the end of each quarter thereafter and continuing until their respective facilities are operational, each

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

11. Upon completion of its part of the project, each applicant shall notify the Commission and report the actual costs segregated by plant account and comparable to the cost breakdown included in this Final Decision. For any account or category where actual cost deviates significantly from that authorized, the final cost report shall itemize and explain the reasons for the deviation.

12. The CAs for WEPCO and WG are each valid only if construction commences no later than one year after the latest of the following dates:

- a. The date this Final Decision is served.
- b. The date when the applicant has received every required federal, state, or local permit, approval, and license that is required prior to commencement of construction under the applicant's CA.

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- c. The date when the deadlines expire for requesting administrative review or reconsideration of this Final Decision and of the permits, approvals, and licenses described in par. b.
13. This Final Decision takes effect the day after the date of service.
14. Jurisdiction is retained.

## **Concurrence**

Chairperson Montgomery concurs and writes separately (see attached).

## **Concurrence and Dissent**

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

Dated at Madison, Wisconsin, this 17<sup>th</sup> day of March, 2014.

By the Commission:



Sandra J. Paske  
Secretary to the Commission

SJP:MV:jlt:DL: 00904277

Attachments

See attached Notice of Rights

# EXHIBIT A

Dockets 6630-CU-101 and 6650-CG-235

PUBLIC SERVICE COMMISSION OF WISCONSIN  
610 North Whitney 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>2</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>2</sup> See *State v. Currier*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.

# EXHIBIT A

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## APPENDIX A

### PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Electric Power Company for Authority to Convert the Valley Power Plant from a Coal-Fired Cogeneration Facility to a Natural Gas-Fired Cogeneration Facility 6630-CU-101

Application of Wisconsin Gas LLC, as a Gas Public Utility, for Authority to Install and Place in Service Facilities Necessary to Supply Natural Gas as Fuel for Wisconsin Electric Power Company's Valley Power Plant, Located in the City and County of Milwaukee, Wisconsin 6650-CG-235

### SERVICE LIST (October 25, 2013)

#### WISCONSIN ELECTRIC POWER COMPANY and WISCONSIN GAS LLC

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#### AMERICAN TRANSMISSION COMPANY LLC and ATC MANAGEMENT INC

Patrisha A. Smith  
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# EXHIBIT A

Dockets 6630-CU-101 and 6650-CG-235

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PUBLIC SERVICE COMMISSION OF WISCONSIN  
*(Not a party, but must be served)*  
610 North Whitney Way  
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Madison, WI 53707-7854  
Please file documents using the Electronic Regulatory Filing (ERF) system which may be  
accessed through the PSC website: <https://psc.wi.gov>.

# EXHIBIT A

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Michael S. Varda

Michael John Jaeger

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# EXHIBIT A

## PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Electric Power Company for Authority to Convert the Valley Power Plant from a Coal-Fired Cogeneration Facility to a Natural Gas-Fired Cogeneration Facility 6630-CU-101

Application of Wisconsin Gas LLC, as a Gas Public Utility, for Authority to Install and Place in Service Facilities to Supply Natural Gas to Wisconsin Electric Power Company's Valley Power Plant, in the City of Milwaukee, Milwaukee County, Wisconsin 6650-CG-235

### CONCURRING OPINION OF CHAIRPERSON PHIL MONTGOMERY

I join my colleagues in the majority opinion. The cost allocation under the majority opinion is within the range of what I consider reasonable. I write separately to respond to Commissioner Callisto's dissent regarding allocation of project costs.

Commissioner Callisto presented proposals to shift more of the costs to run the Valley Power Plant (Valley) from Wisconsin Electric Power Company (WEPCO) electric customers to 450 downtown Milwaukee steam customers. Capital costs, under the majority opinion, are kept at the historic allocation of 92 percent to electric customers and 8 percent to steam customers. The proposals presented by Commissioner Callisto would allocate 35 to 57 percent of the capital costs to the steam customers. Costs associated with uneconomic dispatch, under the majority opinion, are kept at the historic allocation of 100 percent to electric customers. The proposals

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presented by Commissioner Callisto would allocate 50 to 100 percent of the costs associated with uneconomic dispatch to the steam customers.<sup>1</sup>

Considering the range of proposals presented by Commissioner Callisto, if any were adopted, steam customers would see an approximate 52 to 152 percent increase in their steam rates in 2016 as a result of the conversion project. In terms of bill impacts, to save the typical WEPCO residential electric ratepayer \$0.92 a month, steam rates would need to increase 152 percent.<sup>2</sup>

In addition to the reasons articulated in the majority opinion, I cannot support such increases on steam rates for employers in downtown Milwaukee in order to save electric ratepayers such a small amount. The Commission has historically recognized the importance of considering bill impacts and avoiding rate shock as we have considered cost allocations, and it has also avoided application of strict cost-causer/cost-payer principles.

The effect on steam rates of the range of options presented by Commissioner Callisto would be too dramatic, particularly in light of the state of Milwaukee's economy. Increasing steam rates by 52 to 152 percent is, in my opinion, too severe in light of the modest effect on electric ratepayers. These same electric ratepayers stand to benefit from the conversion by, for example, not paying for new transmission lines which would be needed if Valley were retired and the continued availability of Valley to meet electric needs in Milwaukee. The effect on

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<sup>1</sup> Uneconomic dispatch costs were confidential in the instant proceeding. For purposes of this concurring opinion, I used the range of \$17 million to \$30 million in uneconomic dispatch costs publicly discussed and contested in docket 5-UR-106, WEPCO's last rate case. In that proceeding, on behalf of Commission staff, Mr. Wagner testified that Valley's uneconomic dispatch costs were estimated to have been \$17 million in 2013. On behalf of the Citizen's Utility Board, Mr. Hahn testified that Valley's uneconomic dispatch costs are up to \$30 million per year.

<sup>2</sup> In 5-UR-106, the typical WEPCO residential ratepayer, using 650 kilowatt-hours per month, has a monthly bill of \$98.27.

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steam rates of the options presented by Commissioner Callisto is too pronounced compared to the effect on electric rates to garner my support.

DL: 00912012

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## PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Electric Power Company for Authority to Convert the Valley Power Plant from a Coal-Fired Cogeneration Facility to a Natural Gas-Fired Cogeneration Facility 6630-CU-101

Application of Wisconsin Gas LLC, as a Gas Public Utility, for Authority to Install and Place in Service Facilities to Supply Natural Gas to Wisconsin Electric Power Company's Valley Power Plant, in the City of Milwaukee, Milwaukee County, Wisconsin 6650-CG-235

### CONCURRENCE AND DISSENT OF COMMISSIONER ERIC CALLISTO

I dissent from those portions of the Final Decision assigning 92 percent of the capital costs of the Valley Power Plant (Valley) conversion to electric ratepayers, and continuing to require that electric ratepayers pay 100 percent of Valley's uneconomic dispatch costs. I agree with my colleagues that: (a) Valley serves some electric reliability need; (b) the Valley conversion allows electric ratepayers to avoid substantial transmission upgrade costs; and (c) the Valley conversion is consistent with the public interest and the Certificate of Authority before us should be granted. I disagree with the Final Decision's allocation of costs between electric and steam ratepayers. It is unfair to require electric ratepayers to cover 92 percent of the capital costs for converting a utility plant that is inarguably a steam plant first, with electric output secondary.<sup>1</sup> It is similarly unacceptable to continue to require those same electric ratepayers to pay all of the plant's uneconomic dispatch costs, where that dispatch – uneconomic in the energy market – is caused entirely by the needs of steam customers.

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<sup>1</sup> See Direct Testimony of Commission staff witness Ken Detmer at page 3 ([PSC REF#: 191283](#)).

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The Commission first adopted the 92/8 cost allocation for Valley in 1971, shortly after the plant was constructed. It did so because “[t]he original main purpose of Valley was the production of electricity to serve Milwaukee area load, with steam service a secondary output.”<sup>2</sup> In utility regulation, we try to allocate utility costs among customers based on causation; that is, the causers of the costs, or the beneficiaries of the investments, should pay for them. That is how we set utility rates that do not discriminate against certain customers, that fairly apportion costs, and that are ultimately just and reasonable, and consistent with the statutory and constitutional limits on our ratemaking authority. In 1971, the Commission concluded that the 92/8 cost allocation fairly reflected the comparative value of the Valley plant among electric and steam customers. It does not today, nearly 43 years later.

In four decades, circumstances have changed. The Valley plant is dispatched differently, its value to electric versus steam customers has reversed, and its worth in the wider energy market has dropped. It is uncontested that “the primary objective of the Valley Power Plant is to generate steam first and foremost with the export of electricity viewed as an additional source of revenue.”<sup>3</sup> Further, “[t]he Valley plant design heat rate for electric production is poor,” and “Valley no longer is competitive in the Midcontinent Independent System Operator, Inc., electric wholesale market,” except on a limited number of peak demand days.<sup>4</sup> Valley is an older plant, largely inefficient and uneconomic in the context of electricity production. Its main purpose now

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<sup>2</sup> See Final Decision in this docket at page 7.

<sup>3</sup> See We Energies Valley Fuel Conversion Assessment at page 5, prepared by HDR/Cummins & Barnard ([PSC REF#: 187120](#)); Direct Testimony of Commission staff witness John Feit at page 8 ([PSC REF#: 191277](#)) (“It is clear that the needs to provide steam for the steam system, and discontinue the use of coal, are driving the need to repower Valley.”).

<sup>4</sup> See Direct Testimony of Commission staff witness Ken Detmer at pages 3 and 7 ([PSC REF#: 191283](#)); see also Transcript Testimony of WEPCO witness Jeff Knitter at pages 9 – 19 (referencing production costs of Valley as currently “at the highest point,” and acknowledging production costs of Valley as considerably higher than energy market prices, making Valley less likely to be chosen in the energy market for economic purposes).

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is steam production.<sup>5</sup> Yet the Commission today continues, without any modification, a 43-year old cost allocation that requires electric customers to pay for nearly all of the Valley plant's conversion costs, and further saddles electric customers with all of the plant's uneconomic dispatch costs indefinitely – an amount that is estimated at \$185 million in today's dollars over the next 30 years.

The Commission makes no pretense that its adopted cost allocation is derived from any analysis of cost causation or the relative value of the plant among customer classes. Its reasoning is simply that the plant provides some value to electric ratepayers, its conversion to natural gas enables the avoidance of substantial transmission costs, subsidized steam rates help maintain the economic health of downtown Milwaukee, and thus it is appropriate to require electric customers to pay for almost all of the project's capital costs and all of the plant's uneconomic dispatch costs. Nowhere in the Final Decision is there an attempt to compare the value of Valley among electric and steam customers and assign costs accordingly, in sharp contrast to when the Commission first adopted the 92/8 split in 1971.<sup>6</sup>

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<sup>5</sup> The draft Final Decision circulated for the Commission's open meeting of March 14, 2014, explicitly made this point, stating, "Over the years, however, especially with changing fuel prices, new generation, and the development of wholesale electric markets, the primary purpose of Valley has shifted to steam generation, with electrical generation becoming the secondary output. While the boiler efficiency by itself is adequate for steam production, the plant's design heat rate for electric production is poor. . . . Valley is not economically dispatched in the wholesale energy market by the Midcontinent Independent System Operator, Inc., except on peak demand days." But during our open meeting, my colleagues agreed to delete those passages.

<sup>6</sup> See *Re Wisconsin Electric Power Co.*, 92 P.U.R.3d 70 (1971) ("Applicant has allocated and proposes continued allocation of plant investment of the Valley plant to steam heating utility on an incremental cost basis. Under such procedure applicant made a determination of the additional or incremental investment that was required to supply the heating utility with steam output from this unit on the basis that the plant was constructed primarily for electrical generating purposes. On that basis, applicant allocated \$2,908,793 of the total Valley unit No. 1 costs of \$21,703,612 to steam heating utility operations and \$58,567 of the total Valley unit No. 2 costs of \$19,281,888 to steam heating utility. These amounts include facilities for furnishing the steam power boiler capacity in two boilers, special steam extraction equipment, and water treatment plant required for heat sendout not returned as condensate. Applicant proposes allocation of operation and maintenance expenses of both units on a similar incremental basis.").

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No one claims that steam customers derive only 8 percent of the value of the Valley conversion, or that steam customers are responsible for causing only 8 percent of the costs. Without the conversion, Valley would be retired, and steam customers would have to find an alternative source of steam. Uncontested evidence in this case shows that steam customers would face a capital investment of \$102 million for a set of package boilers. And because that steam infrastructure would not be in place until 2018 at the earliest, steam customers would also have to pay for some portion of mercury control installations so that Valley would have the necessary air pollution controls until the package boilers were ready. That puts Valley steam customers' avoided capital costs at between \$102 million and \$137 million, based on the testimony in this case.

The Valley conversion also entails avoided capital costs for Valley's electric customers. There is at most \$180 million in avoided capital transmission costs for electric customers throughout the entire American Transmission Company (ATC) footprint. But only about 43 percent of that, or \$78 million, can fairly be assigned to Valley's electric ratepayers since they would only be responsible for their proportional share of the ATC transmission upgrades. Using avoided costs as one proxy for the value of the Valley conversion among customer classes, it is evident that steam customers receive more than half the value of the conversion compared to Valley's electric customers (\$102 million versus \$78 million). This is also consistent with the fact that Valley primarily serves a steam purpose, rather than electric. While I agree that utility cost allocation is not an exact science, there are parameters guiding what costs we may assign the various classes – what has been called a “continuum of reasonable results” where both classes of

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customers benefit.<sup>7</sup> Requiring that only 8 percent of Valley's capital costs and zero percent of the plant's uneconomic dispatch costs come from steam customers isn't even in the ballpark of reasonableness.

The Commission justifies its lopsided cost allocation based on concerns about the impact a steam rate increase would have on the economic health of downtown Milwaukee. I note that general economic conditions are factors not normally considered appropriate as a principal justification in utility ratemaking. But I, too, am sympathetic to concerns about customer rate shock and would have supported a gradual, phased-in move to a rate structure more closely tied to cost causation and relative value derived, both with regard to capital costs and uneconomic dispatch costs. My colleagues, in contrast, are unwilling to move at all, keeping in line with a decades old allocation that is no longer supportable by how the plant is used, who benefits from it, and its value in the energy market. The cost allocation approved in today's Final Decision is well out of line with long held, generally accepted principles of just and reasonable ratemaking.

I note that Chairman Montgomery's concurring opinion attempts to shift the focus from a flawed cost allocation to an imagined "152 percent" rate increase for steam customers. This is a smokescreen. As a Commission, we've discussed cost allocation for Valley in multiple open meetings, and in each, I have suggested a variety of alternatives, all entailing a gradual, multi-year shift away from the historic 92/8 split and the requirement that electric customers pay 100 percent of uneconomic dispatch costs, to something more reasonable. My colleagues have been unwilling to entertain such a discussion. No movement toward gradualism, no incremental steps toward cost causation, and no compromise. Chairman Montgomery's concurring opinion

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<sup>7</sup> See Direct Testimony of Commission staff witness John Feit at page 6 ([PSC REF#: 191277](#)).

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continues that trend. Raising the specter of dramatic and sudden steam rate increases says nothing of the reasonableness of continuing an outdated and unsupportable cost allocation for Valley.

I respectfully dissent.

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