

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of Wisconsin Electric Power
Company and Wisconsin Gas LLC, both d/b/a
We Energies, to Conduct a Biennial Review of
Costs and Rates – Test Year 2013

Docket No. 05-UR-106

DIRECT TESTIMONY OF TOM METCALFE

- 1 Q. Please state your name.
- 2 A. Tom Metcalfe.
- 3 Q. By whom are you employed and in what capacity?
- 4 A. I am employed by Wisconsin Electric Power Company (“Wisconsin Electric”) as Vice
5 President responsible for the assets located at the utility’s Oak Creek site, including the
6 Oak Creek Expansion Project (“OCXP” or the “Project”). My business address is 231
7 West Michigan St., Milwaukee, Wisconsin 53203.
- 8 Q. When did you assume your present position?
- 9 A. February 1, 2011.
- 10 Q. By whom were you employed prior to that, and what was your position?
- 11 A. I was employed by W.E. Power, LLC (“We Power”) as a Vice President, and Elm Road
12 Services, LLC (“ERS”) as General Manager.
- 13 Q. What were the dates of your employment with We Power and ERS?
- 14 A. October 1, 2004 through January 31, 2011.
- 15 Q. Please describe your educational and professional qualifications.
- 16 A. I earned my Bachelor of Engineering degree with honors from DeMontfort University in
17 Leicester, United Kingdom. I have been involved in the design, development,

1 construction, testing and commissioning of electric generating facilities in the United
2 Kingdom, the Philippines, China, Indonesia, Australia and the US for over 22 years.

3 I started my career in 1989 with SEEBOARD, one of 12 Regional Electricity companies
4 in Great Britain responsible for distributing power to over one million customers in the
5 southeast of England. During that time, I was part of the team that developed Medway
6 Power, a 660 MW natural gas combined cycle plant.

7 In 1993, I began working for Consolidated Electric Power Asia (“CEPA”), a
8 Chinese power developer that was purchased by Southern Energy, Inc. in 1997. At
9 CEPA, I was instrumental in leading the successful development of more than 3,000
10 megawatts of coal-fueled generating capacity, including a 750 MW supercritical coal-
11 fired facility in Queensland, Australia. Prior to moving to the U.S. in 2004, I directed the
12 development and financing of a 550 MW combined-cycle gas turbine facility in South
13 Korea. At each of these projects, I had overall responsibility for leading the development
14 effort, managing the budget, executing the work in accordance with the budget, and
15 appointing and managing resources including experts and employees.

16 From October 2004 until I assumed my current position, I directed the
17 development, permitting, construction and commissioning of OCXP.

18 Q. What is your purpose of the testimony?

19 A. The purpose of my testimony is to show that all the costs actually incurred to construct
20 OCXP are reasonable and should be included in the final “Approved Amount,”
21 recoverable from Wisconsin Electric as rent under the lease agreements for each of the
22 two units constituting OCXP (the “Facility Lease Agreements”).

23 Q. Why is this issue being raised in Wisconsin Electric’s 2013-2014 test year rate case?

1 A. Under the Facility Lease Agreements, the amount of lease payments Wisconsin Electric
2 will pay to We Power is established by reference to the final "Approved Amount" -- a
3 defined term -- for construction of OCXP. Wisconsin Electric's lease payment is an
4 element of its revenue requirement. Thus, to establish the proper amount of the lease
5 payments it is necessary to determine the final Approved Amount according to the
6 Facility Lease Agreements' formula, which I will discuss later.

7 Q. Why isn't the final Approved Amount simply the dollar amount approved by the
8 Commission in its Final Decision in Docket No. 05-CE-130?

9 A. As is common with large, complicated construction projects, the total cost actually
10 incurred deviates somewhat from the front-end estimate which was the basis for the
11 dollar amount in the Final Decision. The Final Decision itself recognized that such
12 deviations are possible by including a project cost tolerance band and by providing for
13 recovery of costs resulting from events of Force Majeure.

14 Q. Are you sponsoring any exhibits to your testimony?

15 A. Yes. Exhibit Ex.-WEPCO/WG-Metcalf-1 is a bar graph showing how the additional
16 costs incurred compare to the dollar amount approved by the Commission in the Final
17 Decision. Exhibit Ex. -WEPCO/WG Metcalfe-2 provides detailed information on each
18 of the additional costs incurred.

19 **Project Construction Costs**

20 Q. Please explain how Wisconsin Electric lease payments are related to the construction
21 costs of the Project.

22 A. The Facility Lease Agreements for the two units were approved by the Commission as
23 part of the approval of the construction of OCXP and cover the terms and conditions

1 under which Wisconsin Electric leases OCXP from We Power. Each of the Facility
2 Lease Agreements uses the term "Approved Amount" to describe the construction costs
3 that We Power may recover from Wisconsin Electric through lease payments. The
4 Commission adopted that term in its Final Decision. The term is defined in the
5 agreement for OCXP Unit 1 as follows:

6 "Approved Amount" shall mean the total amount of actual Construction Costs
7 incurred by or on behalf of Lessor as of the Lease Effective Date but in any case not to
8 exceed an amount equal to:

9 (a) \$1,453,352,800, plus

10 (b) any Construction Costs in excess of (a), but in any case not to exceed
11 five percent (5%) of (a), which are prudently incurred and approved by
12 the PSCW in advance of being recovered in the Rent payments, plus

13 (c) any Construction Costs in excess of (a), which are incurred by or on
14 behalf of Lessor due to an Excused Event, an event of Force Majeure or
15 Event of Loss, which Construction Costs are prudently incurred and
16 approved by the PSCW in advance of being recovered in the Rent
17 payments,

18 (d) provided, however, the Approved Amount shall not exceed actual
19 Construction Costs incurred by or on behalf of Lessor.

20 The language is the same in the lease for Unit 2, except that the amount in (a) is
21 \$737,673,260. In this testimony, the sum of subsection (a) amounts (totaling \$2.191
22 billion) is referred to as the "nominal Approved Amount."

23 Q. We Power is not the sole owner of OCXP. Who are the other owners?

24 A. MGE Power and WPPI each have an ownership interest in the Project.

25 Q. Is Wisconsin Electric presenting only its portion of the Project costs in this proceeding?

26 A. No. The cost figures presented in my testimony reflect 100% of the total cost of
27 constructing the Project. However, the costs of construction are allocated among the
28 three owners based on their share in the Project. We Power's share of the construction
29 costs is \$2.016 billion.

1 Q. What is the projected final cost of construction of the Project, and how does it compare to
2 the nominal Approved Amount?

3 A. The total projected final cost of the Project is \$2.373 billion. Because we incurred
4 several additional costs, which I will describe, this is \$182 million -- or approximately
5 8% -- more than the nominal Approved Amount. This is shown in Ex. – WEPCO/WG –
6 Metcalfe-1.

7 Q. Why are you stating a projected final cost, as opposed to the actual final cost?

8 A. All but approximately \$8.5 million (0.4%) of the construction costs have been incurred as
9 of February 28, 2012. The remaining costs are associated with limited work that will be
10 completed in the coming months. For example, certain punch-list work items will be
11 completed during future scheduled outages. We Power will account for the final actual
12 costs incurred for these items when the work has been completed, and will submit
13 supporting information to the Commission so that it may confirm or adjust the final
14 Approved Amount determined in this proceeding.

15 Q. What is your understanding of the costs described in subsection (b) of the Approved
16 Amount definition, which provides for a tolerance band of up to 5% of prudently incurred
17 costs over the nominal Approved Amount?

18 A. The allowance of a tolerance band can best be understood as giving We Power the
19 authority to prudently manage the Project budget, with the expectation that, on a project
20 of this scale and complexity, some costs may very well be incurred beyond those
21 included in the front-end estimate. The Commission has always recognized this
22 possibility in utility construction projects and has traditionally allowed for a 10%
23 tolerance band.

1 Q. What is your understanding of the costs described in subsection (c) in the Approved
2 Amount definition, those due to events of Force Majeure?

3 A. By not including costs due to events of Force Majeure in the 5% tolerance band, the
4 Commission recognized that some costs are extraordinary and cannot reasonably be
5 anticipated. Such costs would be outside We Power's expectation and control but should
6 still be recoverable.

7 Q. Please discuss the additional costs.

8 A. The additional costs were due to the following:

9 1. Project Enhancements to Allow Fuel Flexibility. In 2006, Wisconsin Electric
10 requested that We Power undertake specific enhancements to the Project due to emerging
11 mercury emission control technologies and increased volatility in the price of eastern
12 bituminous coal in 2004-2006. The enhancements included changes to various systems
13 and equipment and impacted the physical dimensions of buildings, foundations, and
14 infrastructure. As a project management professional, it made sense to incorporate these
15 enhancements into the Project during construction because they would have been
16 substantially more expensive to incorporate after the Project had been fully constructed.
17 The cost for the enhancements was \$24,345,473. Earlier this month, Wisconsin Electric
18 filed an Air Pollution Control Construction Permit Application with the Department of
19 Natural Resources ("DNR"). The purpose of the application is to allow for physical and
20 operation changes needed to provide fuel flexibility for OCXP. After the DNR issues a
21 revised air permit to the facility authorizing combustion of subbituminous coal, the
22 ability to burn a mix of fuel types will result in significant fuel cost savings estimated to
23 be \$25-50 million per year. Along with these savings, Wisconsin Electric is committing

1 to significantly reduced emission rates for all of the major pollutants. In fact, Wisconsin
2 Electric is proposing revised best available control technology and lowest achievable
3 emission rate limits at OCXP, which represent the most stringent emission limits for CO,
4 NO_x, PM, PM₁₀, PM_{2.5} and SO₂ when compared to similar coal-fueled units in the
5 United States.

6 2. Mitigation of Unforeseen Sub-Surface Conditions. Despite taking extensive
7 soil borings when costs for the Project were being developed, we encountered unforeseen
8 subsurface conditions requiring \$1 million of additional costs.

9 3. Delay Caused by Challenge to the Issuance of the Final Decision for OCXP.
10 Opponents of the project brought a legal challenge against the CPCN issued by
11 the Commission. The Dane County Circuit Court vacated the CPCN bringing the Project
12 to a halt, but that decision was ultimately reversed by the Wisconsin Supreme Court.
13 This litigation significantly delayed the Project and resulted in an additional \$44,862,081
14 in Project costs.

15 4. Army Corps of Engineers Permit. The U.S. Army Corps of Engineers issued a
16 permit in May 2005, after the Commission's Final Decision for OCXP. The additional
17 costs resulting from the requirements for additional environmental mitigation measures
18 were \$5,828,982.

19 5. Settlement with the Village of Caledonia on Railroad Crossing Issues. After
20 the Final Decision, an agreement with the Village of Caledonia, dated July 24, 2004,
21 was entered into relating to construction of a railroad crossing. in compliance with Order
22 Points 5 and 6 in the Final Decision. That agreement resulted in additional costs totaling
23 \$3,567,077.

1 6. WPDES Permit Costs. In March 2005, the Wisconsin Department of Natural
2 Resources issued the Wisconsin Pollutant Discharge Elimination System (“WPDES”)
3 permit that covered both water discharges and the cooling water intake system. Project
4 opponents challenged that permit, and as a result of an intervening federal court ruling on
5 the applicable cooling water intake system rules, significant additional litigation ensued
6 resulting in additional costs of \$4,647,801 in the form of legal and expert witness
7 expenses.

8 7. OSHA Hexavalent Chromium Rule. The federal Occupational Safety and
9 Health Administration (“OSHA”) changed the rule that controls occupational exposure to
10 hexavalent chromium. Hexavalent chromium is a byproduct of welding materials with
11 chromium content. The Project includes many thousands of feet of steel pipe and sheet
12 metal with chromium content. The change in law was issued in February 2006 and took
13 effect in May 2006. The new rule’s requirements resulted in \$10 million of additional
14 costs.

15 8. Mercury Emissions Rule. In May 2005, the U.S. Environmental Protection
16 Agency issued a new rule that established requirements related to air emissions of
17 mercury. As a result of the requirements, the Project incurred approximately \$1,000,000
18 of additional costs to install and certify mercury emission monitoring systems.

19 9. Payroll Tax Law Change. In 2009, the state of Wisconsin enacted a change in
20 payroll tax law resulting in additional \$1,813,000 of cost.

21 10. Bechtel Claim. On December 20, 2008, Bechtel Corporation, the general
22 contractor responsible for building the Project submitted a claim for cost and schedule
23 relief. Bechtel also reserved their rights to make additional claims and sought delays in the

1 guaranteed in-service dates for both Unit 1 and Unit 2. Bechtel claimed cost and schedule
2 relief for a number of weather related events including exceptionally high winds,
3 exceptionally heavy snowfall and unprecedented heavy rains. Bechtel also claimed cost and
4 schedule relief for unforeseen and exceptional changes in labor market conditions including
5 declines in the availability of craft labor resulting in Project delays and unexpectedly high
6 rates of compensation.

7
8 On October 30, 2009, Bechtel updated its claim to a total amount of \$517.3
9 million and 7 months schedule relief for unit 1 and 4 months schedule relief for unit 2
10 We Power vigorously disputed the Bechtel Claim, and was able to settle the matter prior
11 to arbitration for \$72 million, or 14 cents on the dollar. That \$72 million settlement
12 payment constitutes an additional cost of the Project.

13 11. Bechtel Claim- Legal and Expert Costs. To defend against the Bechtel
14 claim, various legal counsel and outside experts were retained resulting in additional
15 costs of \$11,866,977.

16 12. Other Weather Events. Severe rainstorms in 2010 generated additional
17 change orders requiring payments to Bechtel of approximately \$630,000.

18 13. Miscellaneous Events. A number of miscellaneous events such as
19 interruption of material and equipment deliveries due to Hurricane Ike and, a volcanic
20 eruption in Iceland and, a strike at the site of the waste handling contractor added an
21 additional \$438,515 to the cost of the Project.

22 Additional information regarding all the additional costs is described in Ex.-WEPCO/WG
23 Metcalfe-2.

1 Q. In order to be recoverable under the facility leases, either under subsection (b)—the 5%
2 tolerance band—or subsection (c) —costs attributable to Force Majeure—the additional
3 costs must have been prudently incurred. Is it your contention that all of the additional
4 costs you have described were costs that were in fact prudently incurred?

5 A. Yes. As the person responsible for managing the costs of constructing the Project and
6 based on my years of experience with comparable projects, it is my opinion that all of the
7 additional costs I have described were prudently incurred based on the information and
8 circumstances that were known at the time each decision was made to incur such costs.

9 Q. You have stated that in your opinion all of the additional costs were reasonably or
10 prudently incurred. Do you have an opinion regarding whether any of the additional costs
11 were the result of Force Majeure and thus recoverable under subsection (c) of the
12 definition of Approved Amount.

13 A. Yes. Based on my experience as a project management professional with intimate
14 knowledge of the Project, I do believe that the events covered by the Bechtel Claim can
15 be fairly characterized as Force Majeure, and therefore should be included in the final
16 Approved Amount under subsection (c).

17 The Bechtel Claim generally sought relief for the impacts on schedule and cost
18 due to extreme weather conditions experienced at the site over an extended period of
19 time, and from the unexpected and unforeseeable unavailability of qualified labor
20 because of regional and/or industry-wide labor needs and limitations. While We Power
21 vigorously defended against Bechtel’s claim on both factual and contractual/legal
22 grounds, and disputed whether the EPC contract entitled Bechtel to relief for certain
23 components of its claim, we had to acknowledge that these unanticipated events had

1 occurred. Additionally, we acknowledged that some portion of the higher labor costs was
2 caused, directly or indirectly, by adverse weather conditions.

3 Q. Why was it reasonable for We Power to agree to pay \$72 million to settle the Bechtel
4 Claim?

5 A. Bechtel sought \$517.3 million in arbitration. We Power was able to settle the claim for
6 \$72 million, or about 14 cents on the dollar, an extraordinary settlement, in my opinion.
7 Our experts and legal advisors told us, and we agreed, that had We Power continued with
8 the arbitration process we would likely have incurred costs greatly in excess of the \$72
9 million settlement amount. Given the very real risks of an adverse decision in arbitration,
10 the identifiable impacts of extended periods of adverse weather, and the costs of
11 proceeding through arbitration, it was prudent to settle the claim. The settlement
12 represents approximately 3% of the Project's nominal Approved Amount and 14% of the
13 claim that Bechtel submitted.

14 Q. Do you have an opinion about whether all of the additional Project costs, including costs
15 of the Bechtel Claim, should be included in the final Approved Amount?

16 A. Yes. In my opinion, all of the additional costs, including the costs of the Bechtel Claim,
17 were prudently incurred in that it was reasonable to incur these costs based on the
18 information that was available at the time the decisions were made. Based on my
19 experience, the additional costs are reasonable given the significant size, complexity and
20 ten-year schedule for the Project. Even when all of the costs beyond We Power's control
21 are considered, the total Project costs were only approximately 8% above the nominal
22 Approved Amount. This amount is well within the Commission's historic 10% cost
23 collar. As I have also explained, the Bechtel Claim was driven by unforeseen events,

1 such as adverse weather, that can fairly be characterized as “Force Majeure” as defined in
2 the Facility Lease Agreements. Finally, with the exception of fuel flexibility and sub-
3 surface conditions, all the other additional costs I’ve described in my testimony were
4 incurred as a result of events such as changes in law or governmental acts that could not
5 have been reasonably foreseen and therefore can also be fairly characterized as “Force
6 Majeure”.

7 Q. Does this conclude your testimony?

8 A. Yes.