



Public Service Commission of Wisconsin

Burneatta Bridge, Chairperson
Ave M. Bie, Commissioner
Robert M. Garvin, Commissioner

610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

November 10, 2003

TO: News Media

FROM: Stephanie Marquis, Communications Specialist - Senior
608.266.9600

RE: Written Order Summary on Phase 2 of Power the Future Oak Creek
Docket 05-CE-130

Background - Phase 1. The PSC considered an application brought forward by WEC to build two natural gas combined cycle plants of 545 megawatts each – one in 2005 and the other in 2008 – in Port Washington. As part of that application, WEC would retire the coal plant at the site upon which the gas units would be constructed. The written order for this decision was issued on December 20, 2002.

Phase 2 - The Application. In Phase 2 of the Power the Future (PTF) proposal, Wisconsin Energy Corporation (WEC) submitted a Certificate of Public Convenience and Necessity in which they applied for two Super Critical Pulverized Coal (SCPC) units to go online in 2008 and 2009, and one Integrated Gasification Combined Cycle (IGCC) unit to go online in 2011, at a total cost of \$4.15 billion.

Overview. Review of the public and technical hearing materials, as well as briefs and reply briefs submitted by the attorneys representing all the parties in the case, took place at an open meeting on October 29, 2003, in Madison, Wisconsin. From that discussion, a written order was created that details the decisions made by the Public Service Commission (PSC). Today, the Commissioners vote on the final written order. Each Commissioner has the opportunity to dissent on a particular portion of the order, although the majority vote rules in the case.

Key Decisions.

1. **Additional power needed.** The PSC determined that additional power plants, including an additional baseload facility, are necessary to meet the continued growth in demand for electricity of two to three percent each year in Wisconsin. A two-and-a-half to three percent growth each year requires between 500-600 megawatts of new generation every two to three years. Each new Super Critical Pulverized Coal (SCPC) units operates at 615 megawatts.

2. **Super Critical Pulverized Coal (SCPC) units.** The Commission approved two SCPC units contingent upon WEC obtaining the necessary air quality and water permits from the Department of Natural Resources.

- The record of the proceeding demonstrates that these units will have **lower air emissions** than the coal plants currently operating in Wisconsin.
- The Final Environmental Impact Statement shows that the SCPC units will be **more efficient** than the coal plants that are currently operating across the state.
- The PSC granted a total construction cost of approximately \$2.15 billion to build the two SCPC units and moved back the online dates to 2009 and 2010. Any cost overruns, which the Commission limited to five percent, in the PTF project must be reviewed by the Public Service Commission.
- Currently, there are four units located at Oak Creek operating at 1200 megawatts each. WEC could retire two of them within ten years.
- **Financial Package.** The coal plants were approved under the recently enacted leased generation law. Under that law, a WEC affiliate constructs and owns the power plants and leases them to Wisconsin Electric Power Company (WEPCO). This law is intended to provide an additional financing mechanism to get needed, capital intensive projects, like power plants, constructed in the state. The approved lease terms assume a 12.7% return on equity and is based on a 30-year lease term.

3. **Integrated Gasification Combined Cycle (IGCC) unit.** Based on the details provided in the record, it was established that the IGCC unit will not be approved at this time.

- The PSC has asked WEC to continue to pursue this technology, although it has been determined that it is not feasible and in the best interest of the public to build an IGCC unit as part of the PTF application at this time.
- **Cost** – It is unknown exactly how much it would cost to build and operate an IGCC plant because of conflicting testimony. On a conservative estimate, it costs approximately \$150/per KW more to construct an IGCC unit versus the SCPC unit that the PSC approved in this project. Since the IGCC unit would produce 600,000 KW, the construction cost for this type of unit is approximately **\$90 million more** than the SCPC units the Commission approved.
- **Technology Concerns** – There are only six IGCC units in existence in the world at this time, all of which are significantly smaller than the unit proposed by WEC. The three units located in the United States (Florida, Indiana and Nevada) were

demonstration projects which received funding of at least 50% by the Department of Energy and each operates under 260 megawatts. **The proposed IGCC unit would operate at 600 megawatts and would not receive funding from the Department of Energy or any other government agency.** The other three IGCC units are located Italy, Spain and the Netherlands and also operate under 260 megawatts. Because the nature of this technology is relatively new and uncertain, there are unknown risks and costs in building a 600 megawatts IGCC unit at Oak Creek.

4. **Diversity of Fuel.** A diversity of fuel sources including coal, gas, and renewable energy sources, will best serve the needs of the state and increase energy efficiency.
 - **Renewable Energy Sources.** In its decision, the PSC acknowledged WEC's commitment to add several hundred more megawatts of renewable energy sources within eight to 10 years, resulting in approximately five percent of its energy needs being supplied by renewable resources. This is well above the standards set forth in Wisconsin law. As part of their renewable energy increase, WEC plans to add 250 to 280 more megawatts of wind energy over the eight to 10 year period.
5. **Review of the Record and Hearing Materials.** Many factors are taken into account when the Public Service Commission considers an application. It must balance between public interest, energy priorities and Wisconsin and federal law. This includes a variety of issues such as cost, reliability concerns, fuel diversity, energy demands and environmental impact. The Commission must also consider which technology is most feasible and energy efficient at the time it makes its decision.

Written Order Availability. The details of the PSC's decision in Phase 2 of the PTF case are outlined in the written order released on its statutory deadline of November 10, 2003. The order will be available online at psc.wi.gov on November 11th.