

**BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of the Commission’s)	DOCKET UE-060649
Investigation of Public Utility)	
Regulatory Policies Act Standards)	INTERPRETIVE AND POLICY
Pertaining to Smart Metering and Time)	STATEMENT REGARDING
of Use Rates)	ENERGY POLICY ACT OF 2005
)	STANDARDS FOR NET-
)	METERING, FUEL SOURCES,
)	FOSSIL FUEL GENERATION
)	EFFICIENCY AND TIME-BASED
)	METERING
.....)	

INTRODUCTION

1 The Washington Utilities and Transportation Commission (Commission) issues this interpretive and policy statement to address four of the five aspects of investor-owned electric utility operations for which new standards are included in the federal Energy Policy Act of 2005. The new standards that we address here concern: 1) net-metering, 2) fuel sources, 3) fossil fuel generation efficiency, and 4) time-based metering and communications.

BACKGROUND

2 The President signed the federal Energy Policy Act of 2005 (Energy Policy Act) into law on August 8, 2005. Sections 1251(a), 1252(a) and 1254(a) of the Energy Policy Act amend Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (PURPA) to add five new utility standards.¹ The Energy Policy Act further amends PURPA Sections 112 and 115 to require that state regulatory authorities consider these new standards and determine whether they should be adopted as requirements for state regulated electric utilities.²

¹ Energy Policy Act §§ 1251(a); 1252(a); and 1254(a) all codified at 16 U.S.C 2621(d)(11-15).

² Energy Policy Act §§ 1251(b)(1-2); 1252(b),(g),(h),(i); 1254(b) codified as 16 U.S.C 2621(b)(3) through (b)(5) and amending 16 U.S.C 2625 (b) and (i).

- 3 The Commission initiated its inquiry to address the Energy Policy Act requirements on June 9, 2006, by filing with the Code Reviser a Preproposal Statement of Inquiry (CR-101) and by issuing a Notice of Opportunity To File Written Comments. On August 15, 2007, the Commission convened a public hearing before Chairman Mark Sidran and Commissioners Patrick Oshie and Philip Jones to receive comments and recommendations concerning the PURPA utility standards.
- 4 The Commission has issued proposed rules concerning interconnection, one of the five new federal standards, and issues this interpretive and policy statement with respect to the other four standards, thereby complying with the requirements included in the Energy Policy Act for each standard.
- 5 Section 1251(a) of the Energy Policy Act establishes three new utility standards: net metering, fuel source diversity, and fossil fuel generation efficiency. State regulatory authorities are required to begin consideration of these three standards by August 8, 2007. The requirement for regulatory authorities to consider the three standards established in Section 1251(a) does not apply if a state has taken “prior action” to adopt or consider the standard or a comparable standard, or if the state’s legislature has voted on the implementation of the standard or a comparable standard.³
- 6 Section 1252(a) establishes a standard for “Smart Metering” to require that utilities make available to retail customers time-based metering and a time-of-use rate schedule. State regulatory authorities are required to begin consideration of whether to adopt this standard August 8, 2006.⁴ The requirement to consider the standard established in Section 1252(a) does not apply if a state has taken “prior action” to adopt or consider the standard or a comparable standard within the three years prior to August 8, 2005, or the state’s legislature has voted on the implementation of the standard or a comparable standard during that same three year period.⁵

³ Energy Policy Act § 1251(b) (3) codified at 16 U.S.C. 2622(d).

⁴ The Energy Policy Act is inconsistent with regard to the schedule for consideration and the requirement for state regulatory authorities to issue a decision regarding this standard. The standard itself requires review and determination within 18 months of enactment of the Energy Policy Act notwithstanding subsequent amendments to PURPA Section 112 that give state regulatory authorities until August 8, 2007, to make this decision.

⁵ Energy Policy Act § 1252(i) codified at 16 U.S.C 2622(e).

- 7 Section 1254(a) establishes a standard to require that utilities make available to utility customers with on-site generation facilities interconnection service to the utility's local distribution system. State regulatory authorities are required to begin consideration of this standard by August 8, 2006. On August 12, 2005, the Commission initiated a rulemaking inquiry to consider establishing regulations to govern the interconnection of customer-owned generation facilities to investor-owned electric utility delivery systems under Docket UE-051106. On March 6, 2006, the Commission permanently adopted WAC 480-108 establishing standards for interconnection of consumer-owned generation facilities up to a capacity of 25 kW.⁶ These regulations include standards for applications for interconnection, processing of such applications, technical and engineering standards for interconnections, safety standards, insurance and liability provisions, and other provisions.
- 8 The Commission is investigating separately in this docket whether standards are needed to govern interconnection of larger systems. In this regard, the Commission notes that the 2006 Legislature enacted ESHB 2352 which amended RCW 80.60 (net metering) to increase the maximum facility size for net metering service from 25 kW to 100 kW.⁷ The Commission has considered whether amendments to WAC 480-108 are necessary and appropriate and has issued proposed rules.

STATEMENT OF POLICIES

Net Metering

- 9 Section 1251(a) of the federal Energy Policy Act establishes a net-metering standard as follows:

NET-METERING-- Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local

⁶ General Order No. R-528, Docket UE-051106, § 480-108, filed March 6, 2006, effective April 5, 2006.

⁷ Chapter 201, Laws of 2006.

distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

- 10 Washington State requires by statute that utilities provide net-metering service pursuant to RCW 80.60. The Legislature reviewed and amended this statute during its 2006 Session.⁸ Consequently, the Energy Policy Act provisions regarding prior state action apply to this standard and no further consideration of the federal standard by the Commission is necessary or required at this time.

Fuel Sources; Fossil Fuel Generation Efficiency

- 11 Section 1251(a) of the Energy Policy Act establishes a fuel sources standard as:

FUEL SOURCES—Each electric utility shall develop a plan to minimize dependence on 1 fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

Section 1251(a) also establishes a fossil fuel generation efficiency standard as:

FOSSIL FUEL GENERATION EFFICIENCY—Each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation.

- 12 Engrossed Substitute House Bill 1010 (Chapter 195, Laws of 2006 codified as RCW 19.280) requires certain Washington electricity utilities, including the three investor-owned utilities that are jurisdictional to the Commission, to regularly prepare “integrated resource plans” (IRPs). This statutory requirement is reflected in WAC 480-100-238. The utility IRPs must describe “the mix of energy supply resources and conservation that will meet current and future needs at the lowest reasonable cost to the utility and its ratepayers.” WAC 480-100-238 requires utilities to consider and include in their planning both commercially available conservation and a wide range

⁸ Chapter 201, Laws of 2006.

of conventional and non-conventional generation technologies including renewable technologies. The rule defines conservation as “any reduction in electric power consumption that results from increases in the efficiency of energy use, *production*, or distribution.” (*Emphasis added*).

- 13 Thus, the Energy Policy Act provisions regarding prior state action apply to the PURPA Fuel Sources standard and the Fossil Fuel Generation Efficiency standard and no further consideration of these standards by the Commission is necessary or required at this time.

Smart Metering/Time-of-Use Rates

- 14 Section 1252(a) of the Energy Policy Act establishes a standard for Smart Metering as:

TIME-BASED METERING AND COMMUNICATIONS

(A) Not later than 18 months after the date of enactment of this paragraph, each electric utility shall offer each of its customer classes, and provide individual customers upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance, if any, in the utility’s costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology.

(B) The types of time-based rate schedules that may be offered under the schedule referred to in subparagraph (A) include, among others—

(i) time-of-use pricing whereby electricity prices are set for a specific time period on an advance or forward basis, typically not changing more often than twice a year, based on the utility’s cost of generating and/or purchasing such electricity at the wholesale level for the benefit of the consumer. Prices paid for

energy consumed during these periods shall be pre-established and known to consumers in advance of such consumption, allowing them to vary their demand and usage in response to such prices and manage their energy costs by shifting usage to a lower cost period or reducing their consumption overall;

(ii) critical peak pricing whereby time-of use prices are in effect except for certain peak days, when prices may reflect the costs of generating and/or purchasing electricity at the wholesale level and when consumers may receive additional discounts for reducing peak period energy consumption;

(iii) real-time pricing whereby electricity prices are set for a specific time period on an advanced or forward basis, reflecting the utility's cost of generating and/or purchasing electricity at the wholesale level, and may change as often as hourly; and

(iv) credits for consumers with large loads who enter into pre-established peak load reduction agreements that reduce a utility's planned capacity obligations.

(C) Each electric utility subject to subparagraph (A) shall provide each customer requesting a time-based rate with a time-based meter capable of enabling the utility and customer to offer and receive such rate, respectively.

15 Section 1252(b) of the Energy Policy Act amends Section 115 of PURPA to provide further direction regarding factors state regulatory authorities must consider when determining whether this new standard should be adopted as a requirement for state regulated electric utilities:

In undertaking the consideration and making the determination required under section 2621 of this title with respect to the standard for time-of-day rates established by section 2621(d)(3) and the standard for time-based metering and communications established by section 2621(d)(14) of this title, a time-of-day rate charged by an electric utility for providing electric service to each class of electric consumers shall be determined to be cost-effective with respect to each such class if the

long-run benefits of such rate to the electric utility and its electric consumers in the class concerned are likely to exceed the metering and communications costs and other costs associated with the use of such rates.

(i) In making a determination with respect to the standard established by section 111(d)(14), the investigation requirement of section 111(d)(14)(F) shall be as follows: Each State regulatory authority shall conduct an investigation and issue a decision whether or not it is appropriate for electric utilities to provide and install time-based meters and communications devices for each of their customers which enable such customers to participate in time based pricing rate schedules and other demand response programs.⁹

16 The Commission examined time-based metering and time-of-use rates on a generic basis in 1980 and with regard to a specific program offered by Puget Sound Energy, Inc. (PSE), in 2002.

17 In the 1980 proceeding, the Commission considered the original “time of day rates” standard in PURPA Section 111(d)(3) and determined:

Basically, this standard says that rates to classes of electric customers shall be on a time-of-day basis unless it is determined that time-of-day ratemaking is not cost-effective to the utility and its customers. We agree with this standard, and believe that it should be adopted.¹⁰

⁹ Amendments made by the Energy Policy Act are underlined.

¹⁰ *In the Matter of Investigation on the Commission’s Own Motion: Into Rate Design and Rate Structure for Electrical Service of Pacific Power & Light Company, Puget Sound Power and Light Company and the Washington Water Power Company, and the Alterations, if any, that should be Ordered to such Rate Design and Rate Structures, and, Into the Adequacy of Existing Rules of the Commission Relating to Electrical Companies and Amendments or Additions Thereto That May be Appropriate Regarding Master Metering, Information to Consumers, Advertising, and Termination of Service*, Commission Decision and Order at 7, Cause No. U-78-05, (October 29, 1980).

The Commission emphasized that “time-of-day ratemaking is acceptable only if cost-justified” including the cost of metering and consideration of benefits, if any, that might be derived from shifting the load and generation patterns of utilities in Washington.¹¹

- 18 In 2001, the Commission allowed PSE to offer a pilot time-of-use pricing program to its customers. On November 15, 2002, the Commission terminated the program, finding that the time-of-use rates were not fair, just and reasonable. Among other things, 94 percent of the customers participating in the pilot program paid more under the time-of-use tariff than they would have paid under standard tariff service.¹²
- 19 The Commission also examined large customer load reduction buyback programs in 2000-2001. In December 2000, the Commission allowed individual large customer load reduction buyback programs to go into effect for Avista Corporation (Avista), PacifiCorp, and Puget Sound Energy. These programs provided credits to customers to curtail load during specified periods. During the period of December 2000 through September 2001, customers curtailed nearly 13,000 MWh through these programs. The Avista program expired in 2001. The Pacific Power and Puget Sound Energy programs are still in their respective tariffs, although neither company has activated them since 2001.
- 20 In this inquiry, the Commission received written comments and recommendations regarding smart metering and time-of-use rates from PSE, Avista, PacifiCorp, the Industrial Customers of Northwest Utilities (ICNU) and the Public Counsel Section of the Washington Office of the Attorney General (Public Counsel).¹³ The Commission also received oral comments from Public Counsel at its public hearing convened on August 15, 2007.

¹¹ *Id.* at 8.

¹² *In Re: Washington Utilities and Transportation Commission v. Puget Sound Energy*, Fourteenth Supplemental Order. Docket Nos. UE-011570 and UG-011571 (November 15, 2002). An analysis of the time-of-use program was completed pursuant to the settlement of PSE’s general rate case and the final report of that analysis was filed with the Commission on July 1, 2003.

¹³ PSE comments August 11, 2006; Avista comments August 11, 2006, and August 14, 2007, PacifiCorp comments August 11, 2006; ICNU comments August 11, 2006, and July 25, 2007; Public Counsel comments August 8, 2007 and at August 15, 2007 hearing.

- 21 All five commenters recommend that the Commission not adopt a standard to generally require utilities to provide customers with specific metering technology.
- 22 All five commenters also recommend that the Commission not adopt a standard to generally require utilities to provide a uniform time-of-use rate design.
- 23 PSE, PacifiCorp, ICNU, and Public Counsel base their recommendations on experience with time-of-use rate programs in Washington and Oregon. They observe that these programs exhibited low participation rates, high costs, and few quantifiable benefits.¹⁴
- 24 Avista bases its recommendation on metering and data storage costs as well as recent analyses showing that in its circumstances time-of-use metering and rates are not likely to be cost-effective for all customer classes.
- 25 PSE, Avista and PacifiCorp observe that smart metering and time-of-use rates may be cost-effective for some, but not all, customer classes in some, but not all, circumstances. The utilities observe that adoption of a specific standard or rate design would fail to capture these differences and would not recognize that both technology and circumstances will change over time. They recommend that such metering and rate designs be examined on a utility-specific, case-by-case basis.
- 26 Public Counsel cites a recent study to demonstrate that time-of-use billing programs are not beneficial to low-income residential customers who have little ability to shift their energy usage patterns.¹⁵
- 27 All five commenters recommend that the Commission reaffirm its existing policy that time-of-use rates and metering are appropriate only if cost-effective. PSE, Avista, PacifiCorp and Public Counsel propose factors that should be taken into account when cost-effectiveness is examined.

¹⁴ For example, Public Counsel notes that the time-of-use pilot program implemented by PSE in Washington State in 2001 caused 94 percent of participating customers to pay higher bills than they would have under otherwise applicable tariffs. Public Counsel states that an evaluation completed in 2003 of the PSE pilot program concluded the time-of-use program was not cost-effective.

¹⁵ Public Counsel cites: *Smart Meters, Real Time Pricing, and Demand Response Programs: Implications for Low Income Electric Customers*, by Barbara Alexander, prepared under contract with Oak Ridge National Laboratory, May 30, 2007.

28 PSE, Avista, and PacifiCorp observe that customer demand response is an appropriate factor to consider in the load-forecasts or resource portfolios examined in a utility's integrated resource planning.

29 The Commission also received comments from V2Green, Inc., which focused on the importance of integrating in the electricity system newly emerging transportation loads, such as plug-in, hybrid vehicles. V2Green does not advocate any specific metering or rate design standard, but observes generally that "existing electricity tariffs don't account for the ways in which electricity will be used in transportation. New structures such as time-of-use rates and real-time pricing can incent electricity suppliers and consumers to use our energy resources in more optimal ways."¹⁶

30 Considering all comments, recommendations and evidence received, the Commission reaffirms its policy adopted in 1980 that time-of-day ratemaking is acceptable only if cost-justified.

31 The Commission finds and determines that it is not appropriate to require generally that electric utilities provide and install time-based meters and communications devices for each of their customers which enable such customers to participate in time based pricing rate schedules and other demand response programs as specified in Section 1252(a) of the Energy Policy Act.

32 The Commission expects that time-of-use metering and rate designs will be examined on a case-by-case basis in rate investigations or other proceedings considering the varying circumstances of each utility and each utility's customer classes.

33 The Commission will consider a broad range of factors when examining advanced metering and rate design proposals. The factors most pertinent to any case, and the manner in which such factors are appropriately evaluated, will depend on the specific details of proposals and may change over time with changing circumstances, loads, and technologies. Examples of relevant factors the Commission may consider include, but are not limited to:

¹⁶ V2Green comment via e-mail May 25, 2007.

- Meter and installation costs.
- Administration costs including data storage, billing, and other associated functions to enable time-of-use pricing.
- Communication and marketing costs.
- Administrative savings associated with meter reading or other utility functions.
- System capacity and energy benefits: Value of operational changes in utilization of generation, transmission and distribution resources as a result of direct utility load-control, or reasonably expected customer actions to conserve or shift the timing of energy usage.
- Equity in the distribution of any bill savings or costs among the customer classes, including the costs and benefits incurred or received by customers changing energy use patterns in response to time-of-use rate programs.
- Economic benefits that may be associated with the integration of new end-use loads such as recharging batteries in electrically powered vehicles.
- Economic benefits that may be associated with deferring investments in new delivery or generation capacity.
- Economic benefits that may be associated with additional information gathered through time-of-use metering systems (e.g., load research data).
- Environmental effects, positive or negative, of utility direct load-control programs, or customer load-shifting and conservation in response to time-of-use programs.
- Effects, if any, from advanced metering capability on existing consumer protection policies and programs relying on direct utility contact with customers.
- Protection of customer information and privacy.

34 The Commission expects that utilities will consider the potential effects of customer demand programs and related metering as a part of the load forecasting or resource assessments included in their integrated resource plans.

- 35 The Commission will continue to evaluate smart metering and time-of-use rates on a case-by-case basis unless and until it determines uniform standards will produce cost-effective results considering the circumstances of the individual utility companies that are within the Commission's jurisdiction.

DATED at Olympia, Washington, and effective August 22, 2007.

WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION

MARK H. SIDRAN, Chairman

PATRICK J. OSHIE, Commissioner

PHILIP B. JONES, Commissioner