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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	**Docket No. 10-035-124** UCE Exhibit 1.0D [COS+RD]

DIRECT TESTIMONY OF SARAH WRIGHT

ON BEHALF OF

UTAH CLEAN ENERGY

[COST OF SERVICE AND RATE DESIGN]

June 2, 2011

INTRODUCTION

Q: Please state your name and business address.

A: My name is Sarah Wright. My business address is 1014 2nd Ave, Salt Lake City, Utah 84103.

Q: By whom are you employed and in what capacity?

A: I am the Executive Director of Utah Clean Energy, a not-for profit public interest organization that works to advance energy efficiency and renewable energy in Utah.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of Utah Clean Energy (UCE).

Q: What is Utah Clean Energy's interest in this docket?

A: Utah Clean Energy works to advance both energy efficiency and renewable energy as part of a cleaner, safer, more sustainable energy future. Utah Clean Energy is interested in dramatically increasing the amount of energy efficiency implemented in Utah, as we consider energy efficiency to be a high priority resource for Utah that saves money, preserves energy resources, reduces greenhouse gas emissions, and helps improve environmental quality, public health, and energy security.

Q: What is the purpose of your testimony?

A: The purpose of my testimony is to support designing rates to encourage energy conservation. Numerous Utah policies emphasize and prioritize energy efficiency and conservation as a priority resource. I will describe these policies in order to show that encouraging conservation should be prioritized when designing electricity rates in this rate case. Residential electricity rates can encourage energy efficiency and conservation if designed to send

appropriate price signals. I will outline some rate design principles and make residential rate design recommendations based thereon.

Q: Please provide your professional experience and qualifications.

A: I am the founder and director of Utah Clean Energy, a non-profit public interest group working to advance energy efficiency and renewable energy. Through my work with Utah Clean Energy, I have been involved in a number of regulatory dockets in both the natural gas and electricity arenas. These proceedings include Integrated Resource Planning, rate cases, tariffs, and miscellaneous dockets relating to energy efficiency and renewable energy. I serve on the both Rocky Mountain Power's and Questar Gas Company's Demand Side Management Advisory Committees. I have over ten years of energy policy experience and I have served on numerous energy policy working groups and taskforces including: the Energy Efficiency and Energy Development Committees supporting Governor Herbert's Energy Task Force and Ten Year Energy Plan, the Governor's Utah Renewable Energy Zone Task Force, Governor Huntsman's Energy Advisory Council and Blue Ribbon Climate Change Advisory Council, and Utah's Legislative Energy Policy Workgroup, providing information and policy support for energy efficiency and renewable energy. I currently serve on Salt Lake City's Climate Action Task Force, Utah Technology Council's policy committee, and engage in regional policy activities including the Western Governors' Association and the Western Climate Initiative.

For the 15 years prior to founding Utah Clean Energy, I was an occupational health and environmental consultant working on occupational health and ambient air quality issues for a wide variety of commercial, industrial and governmental clients across the west.

I have a BS in Geology from Bradley University in Peoria, Illinois and a Master of Science in Public Health from the University of Utah in Salt Lake City. My resume is attached at the end of my testimony.

Q: Have you testified previously before this Commission?

A: Yes. I testified on behalf of Utah Clean Energy in Docket No. 05-057-T01, In the matter of the joint application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy for approval of the Conservation Enabling Tariff adjustment option and accounting orders.

OVERVIEW AND CONCLUSIONS

I conclude that there is ample policy support in Utah to prioritize energy conservation when designing rates for the residential class. I recommend use of the Commission-approved methodology for calculating the monthly customer charge. I further recommend that the third block be set at no less than $0.14/kWh. I conclude that designing residential rates in accordance with the foregoing will result in rates that are just and reasonable, in the public interest, and that send stronger price signals to encourage energy conservation and efficiency. I acknowledge that the Company may have a throughput incentive that is counter to advancing energy efficiency and request that the Public Service Commission establish a workgroup to analyze this issue.

POLICIES SUPPORTIVE OF PROMOTING ENERGY EFFICIENCY

Q: Why is energy conservation important?

Energy efficiency and energy conservation are the cheapest and cleanest energy resources we have available to meet our growing energy demand, and there is tremendous untapped energy

efficiency potential. Two recent national studies by McKinsey Company and the National Academy of Sciences show that we can meet 20 to 30 percent of the nation's business as usual energy demand projections by 2020 and 2030 respectively, if we deploy energy efficiency practices and technologies more quickly than they have been previously deployed. The McKinsey study also reports that the residential sector represents 35% of the total end use energy efficiency potential[1]. The National Academy of Science analysis finds that energy efficiency can meet all of our new electricity demand, stating that, "In buildings alone, these technologies could eliminate the need to increase electric generating capacity, despite economic and population growth."[2] Clearly energy efficiency and energy conservation are extremely valuable resources that must be developed and encouraged.

Q: How have Utah policy-makers acknowledged the importance of energy efficiency and conservation?

A: Most recently, Governor Herbert, in his energy plan for Utah, *Energy Initiatives and Imperatives: Utah's 10-Year Strategic Energy Plan*, identified the following goals with regard to "[m]aximiz[ing] Utah's commitment to energy efficiency"[3]: "Modernize the regulatory environment to support sustainable power generation, energy transmission solutions and energy conservation" and "Promote energy efficiency, conservation, and peak consumption reductions."[4]

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[1] McKinsey Company, *Unlocking Energy Efficiency in the US Economy* (July 2009) at iv, available at http://www.mckinsey.com/en/Client_Service/Electric_Power_and_Natural_Gas/Latest_thinking/Unlocking_energy_efficiency_in_the_US_economy.aspx. (The McKinsey report looks through 2020 whole the National Academies report looks through 2030.)

[2] The National Academies, *Real Prospect for Energy Efficiency in the United States: Report in Brie* (2009) at 1, available at http://dels-old.nas.edu/dels/rpt_briefs/aef_efficiency_brief_final.pdf.

[3] Governor Gary R. Herbert, *Energy Initiatives and Imperatives: Utah's 10-Year Strategic Energy Plan* (March 2, 2011) at 8, available at http://www.utah.gov/governor/docs/10year-stragegic-energy.pdf.

[4] *Id.* at 3.

Utah's 10-Year Strategic Energy Plan further highlights the importance of the regulatory process in encouraging energy conservation: "Utah's regulatory framework is most effective in focusing its efforts in reducing overall energy consumption, managing peak loads through best practices, and supporting energy efficiency and demand response programs, consumer education, and *utility rate design to promote energy efficiency and conservation*."[5]

In addition to Utah's Governor, the State Legislature has also provided policy direction to electric utilities, regulators, and others to create incentives to increase energy efficiency and conservation. In the Legislature's 2009 H.J.R. 9—*Joint Resolution on Cost-effective Energy Efficiency and Utility Demand-side Management*—Utah's lawmakers expressed support for innovative rate designs intended to increase efficiency and conservation, as long as they are in the public interest.[6]

Q: What other policies support energy conservation as a priority principle in designing rates in Utah?

A: Utah Code 54-3-1, which requires that all charges made, demanded, or received by a public utility shall be just and reasonable, also explains that the scope of just and reasonable may include means for encouraging energy conservation. Additionally, Utah Code 54-4-4.1 now specifically provides that methods of just and reasonable rate regulation may include rate designs that utilize volumetric, demand, fixed, and variable rate components.

Q: How do these statutes support energy conservation as a priority principle in designing rates?

[5] *Id.* at 30 (emphasis added).
[6] HJR 9, Enrolled Copy (Utah 2009) at lines 85-89, available at http://www.le.state.ut.us/~2009/bills/hbillenr/HJR009.pdf.

A: These statues provide the Commission with flexibility in designing just and reasonable rates that are in the public interest. Additionally, in Docket No. 08-999-05, the Utah Public Service Commission found that these two statutes, along with H.J.R. 9, were sufficient to support the purposes of Title 1 of PURPA[7] such that adoption of the PURPA Rate Design Standard (*see below*) in Utah was redundant and therefore unnecessary.

Q: What are the purposes of Title 1 of the Public Utilities Regulatory Policies Act (PURPA)?

A: Title 1 of PURPA established three purposes, namely the conservation of energy, efficient use of facilities and resources by electric utilities, and equitable rates to electricity consumers.[8] In furtherance of these goals, in 2007, the Energy Independence and Security Act (EISA) amended PURPA by adding, among other things, a rate design standard[9] to Title 1, Subtitle B of PURPA to encourage energy efficiency investments.[10]

Q: What is the PURPA Rate Design Standard?

A: Found in Section 2621(d)(17) of PURPA, "Rate design modifications to promote energy efficiency investments," states that electric utility rates shall (i) align utility incentives with the delivery of cost-effective energy efficiency, and (ii) promote energy efficiency investments. Specifically, regulatory authorities are to consider "including the impact on adoption of *energy efficiency as one of the goals of rate design* recognizing that energy efficiency must be balanced

[7] Public Utilities Regulatory Policies Act, 16 U.S.C. 46.
[8] 16 U.S.C. 46, Section 2611.
[9] 16 U.S.C. 46, Section 2621(d)(17).
[10] For a brief background of PURPA and the 2007 amendments, see Docket No. 08-999-05, particularly the *Determination Concerning the PURPA Rate Design Standard*, issued December 16, 2009 by the Utah Public Service Commission.

with other objectives," and "adopting *rate designs that encourage energy efficiency* in each customer class."[11]

State regulatory commissions were tasked with determining whether it was appropriate to implement the Rate Design Standard in order to carry out the purposes of PURPA, or whether comparable standards had already been implemented.[12] Because the Utah Commission found that comparable standards, which facilitated designing rates for encouraging energy efficiency, had already been implemented in Utah, they declined to adopt the PURPA rate design standard. Those policies, specifically, were the ones I mentioned above in lines 99-103.

Q: What is your conclusion with regard to policies promoting energy efficiency and conservation through rate design?

A: I conclude that there is ample policy support in Utah to design and implement rates in such a way that will send energy conservation price signals.

RESIDENTIAL RATE DESIGN

Q: What role does residential rate design play in promoting energy efficiency?

A: Residential rate design affects the price signals consumers receive from their energy bills and can influence customer choices and energy consumption behaviors. A rate design that collects more costs from volumetric energy rates conveys the message that increasing energy consumption increases the costs of energy. Collecting revenues through volumetric rates further reinforces energy conservation because consumers can more obviously benefit from energy conserving behaviors and efficiency upgrades and investments and more quickly realize their

[11] 16 U.S.C. 46, Section 2621(d)(17)(B)(iii-iv) (emphasis added).
[12] Docket No. 08-999-05, *Order on the Determination Concerning the PURPA Rate Design Standard*, issued December 16, 2009 at 2.

returns on investment.

Rate designs that collect more costs through volumetric charges therefore send price signals to conserve energy through behavior changes and investments in energy efficient homes and technologies. The Regulatory Assistance Project says that recovering costs through volumetric sales allows pricing structures that "reflect the long-term economic costs of serving demand and preserves the linkage between consumers' energy costs and their levels of consumption."[13]

In the interest of sending strong price signals for energy conservation and efficiency, it is the position of Utah Clean Energy that the majority of utility revenues from the residential class should be collected through volumetric rates and that volumetric rates should be more strongly inverted.

Q: What is the Company's residential rate design proposal in this case?

A: The Company proposes to increase the monthly customer charge by $6.25 to $10.00. According to the Company's calculation methodology, the current customer charge fails to recover all of the Company's fixed costs.[14] Apart from shifting cost recovery to the monthly customer charge, the Company proposes no substantive changes to residential energy charges or the energy charge structure.[15]

In his direct Testimony, William R. Griffith explains, "In today's environment where we encourage reduction in usage where possible and attempt to achieve efficient usage in all

[13] Wayne Shirley, Jim Lazar, and Frederick Weston, *Revenue Decoupling, Standards and Criteria: A Report to the Minnesota Public Utilities Commission* (June 30, 2008) at 5, available at http://raponline.org/docs/RAP_Shirley_DecouplingRevenueRpt_2008_06_30.pdf.
[14] Direct Testimony of William R. Griffith at lines 87-99.
[15] Direct Testimony of William R. Griffith at lines 82-83.

circumstances, it is not appropriate to achieve the recovery of fixed costs through the variable energy components of rates."[16]

Q: William R. Griffith describes the 'throughput incentive,' which encourages utilities to sell more kWh to recover its fixed costs through volumetric sales. Do you support his conclusion that removing the throughput incentive with a higher fixed monthly customer fee is appropriate?

A: No, because increasing the customer charge blunts the price signals to conserve energy. A higher fixed fee limits the ability to send price signals to conserve through volumetric charges and inclining block rates. In fact, as discussed later in this testimony, it penalizes low energy users by increasing their bills disproportionately compared to high energy users.

Q: Given that you do not support a high monthly customer fee, are there other ways to remove the throughput incentive?

A: Yes, there are other business models that remove the throughput incentive. One such mechanism is revenue decoupling, which has been successfully adopted for Questar Gas and was proposed by the Division of Public Utilities and supported by Utah Clean Energy and SWEEP in Rocky Mountain Power's last general rate case.

Q: Is Utah Clean Energy recommending decoupling in this rate case?

A: No, we are not recommending decoupling in this rate case, but given that there is still concern by the Company regarding the throughput incentive, we request that the Public Service Commission establish a workgroup to analyze this issue.

Q: Do you support either of the Company's calculations of the monthly customer charge?

[16] Direct Testimony of William R. Griffith at lines 102-104.

A: No, we support the Commission approved methodology for this case.

Q: In addition to preserving price singles that encourage energy conservation, why else is it appropriate to maintain a relatively low fixed fee?

A: Although fixed costs are not variable in the short term, varying levels of energy usage can impact the long term "fixed" costs of maintaining and updating the electric system. For example, the need for distribution system upgrades is influenced by increasing demand. Therefore, collecting the Company's proposed amount of costs through the monthly customer charge sends erroneous price signals about the longer term impacts of high energy use. Therefore, in order to send the greatest possible price signal for consumers to reduce energy consumption and invest in energy efficient technologies some "fixed" costs should be recovered through volumetric rates.

Such a position is consistent with past Commission orders. Specifically, in the last Rocky Mountain Power rate case, the Commission found that recovering costs for local distribution facilities in the fixed fee, that is, equally from all customers regardless of usage, was not equitable because it ignored differences in peak use.[17] Increasing customer energy demand puts increasing pressure on distribution systems, which can and does result in costly upgrades. Furthermore, the Regulatory Assistance Project reports that increased consumption of electricity carries environmental and reliability externalities and that these externalities and associated costs

[17] Docket No. 09-035-23*,* In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Ratesin Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, *Report and Order on Rate Design*, issued June 2, 2010 at 30.

affect everyone else in society.[18] It is not appropriate to send price signals that imply, incorrectly, that all customers affect long-run costs to the same degree.

Q: In Exhibit RMP___(WRG-6), the Company shows that, under its residential rate design proposal, monthly energy charges increase by about 6% for all levels of residential energy usage. Does this exhibit also show the projected monthly *bill* (customer charge plus energy charge) increase across all residential energy use levels?

A: No, while the exhibit implies that all customers are treated roughly equitably under the Company's proposal, in fact, low energy users, who put less impact upon the system, are penalized compared to higher energy users under the Company's proposal. Please refer to UCE Exhibit 1.1D, where we calculated the absolute and percentage *bill* increases for the same usage levels in RMP Exhibit___(WRG-6). UCE Exhibit 1.1D shows that low energy users, who use 400 kWh and below per month, have bill increases between 22 and 56 percent and that large energy users, who use between 1,500 and 5,000 kWh per month have bill increases between 10 and 7 percent. Under this proposal, high energy users are rewarded compared to low energy users.

Q: Do you believe that the Company's proposal sends price signals to conserve energy?

A: Clearly not; it does just the opposite. It rewards large energy users with a smaller rate increase, despite their increased contribution to future costs. Furthermore, placing a significant proportion of the rate increase in the customer charge hamstrings the ability to increase volumetric energy charges to send price signals to encourage conservation.

[18] Regulatory Assistance Project, *Issue Letter—Efficiency Regulation of the Distribution Utility: Where Rate Design and PBR Meet* (May 2001) at 5, available at http://raponline.org/docs/RAP_IssuesLetter-EfficientRegulationOfDistributionUtility_2001_05.pdf.

Q: Do you have a rate design recommendation for this rate case that provides clearer conservation-promoting price signals?

A: I recommend using the Commission-approved methodology of calculating the customer charge. I also recommend setting the third block rate (a rate paid only by high volume consumers) at no less than $0.14/kWh.

Q: Why do you recommend a tail block rate no less than $0.14/kWh?

A: As I discussed above, higher energy users put more demands on the system and contribute more than low energy users to increased long-term costs. It is therefore appropriate to set tail block rates at a level reflective of long run marginal costs. In its Marginal Cost Study, prepared pursuant to Commission order in Docket No. 09-035-23, the Company calculated a 10-year marginal cost for residential customers at just over $0.135/kWh.[19] Utah Clean Energy has not evaluated the Company's marginal cost study methodology; nevertheless, the study provides clear support for the position that there is cost-justification for increasing the tail block rate more than the Company proposed in this case.

Q: Will you summarize your conclusions and recommendations?

A: Yes. I conclude that there is ample policy support in Utah to prioritize energy conservation when designing rates for the residential class. I recommend use of the Commission-approved methodology for calculating the monthly customer charge. I further recommend that the third block be set at no less than $0.14/kWh. I conclude that designing residential rates in accordance with the foregoing will result in rates that send stronger price signals to promote energy conservation and efficiency. Finally, Utah Clean Energy requests that

[19] REDACTED Exhibit RMP___(CCP-5), page 1.2.

the Public Service Commission establish a workgroup to analyze the implications of the throughput incentive and its impact on the utility, ratepayers, and energy efficiency.

Q: Does that conclude your testimony?

A: Yes.