RATE DESIGN PRINCIPLES AND POLICIES

Q: What principles of rate design support Utah Clean Energy's rate design position?

A: Residential rate design is an exercise in balancing policies and objectives while recovering the Company's residential revenue requirement. The Commission has recognized numerous policy objectives in establishing residential rate designs, including intra-class equity, cost-based rates, revenue stability, gradualism, rate stability, appropriate energy price signals, and incentives for energy conservation.[33]

Q: Why does Utah Clean Energy put such heavy weight on sending appropriate energy price signals and encouraging conservations in its recommendations for rate design?

Utah Clean Energy's mission is to lead and accelerate the clean energy transformation with vision and expertise. We work to prevent energy waste, facilitate the creation of clean energy resources, and to envision and build a smart energy future for the long term public interest.

Studies show that the potential for energy efficiency is significant and that cost-effective technologies can be implemented to reduce our electricity consumption by 20-30% from the business as usual trajectory by 2030 even when accounting for population and economic

[33] *See, e.g. 06-035-21 Order*, page 30.

362 growth.[34] Efficiency in the building sector alone has the potential to negate the need for new
363 power plants.[35] In addition, the residential sector, a target audience for energy efficiency
364 upgrades, represents 35% of the total end use energy efficiency potential.[36]

365 Furthermore, studies indicate that approximately $200 Billion will be invested in
366 electricity infrastructure in the West by 2030.[37] We are a crossroads where we can invest in the
367 current fossil fuel predominated electricity infrastructure or we can make a choice to begin to
368 move toward a clean energy vision. Energy efficiency and distributed energy not only have
369 immediate and significant energy and non-energy benefits, but they also have the important
370 benefit of deferring Company investments in costly supply-side resources. Deferral of
371 investments not only saves ratepayers money, but it also buys the Company and ratepayers time
372 that can be used to avoid environmental and technology risks associated with making potentially
373 imprudent investments on long-lived utility scale investments. Energy efficiency, conservation,
374 and distributed renewables provide these benefits while leveraging private investments and
375 personal commitments to reduce energy consumption.

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[34] 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 National Academies, *Real Prospect for Energy Efficiency in the United States: Report in Brief* (2009) at 1, available at http://dels-old.nas.edu/dels/rpt_briefs/aef_efficiency_brief_final.pdf. (The McKinsey report looks through 2020 whole the National Academies report looks through 2030.)

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

[36] 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.)

[37] Carl Linvill, John Candelaria, and Ashley Spalding, *Western Grid 2050: Contrasting Futures, Contrasting Fortunes* (August 22, 2011), page 1, available at http://www.cleanenergyvision.org/clean-energy-vision-technical-report/; Ron Binz, Richard Sedano, Denise Furely, and Dan Mullen, *Practicing Risk-Aware Electricity Regulation" What Every State Regulator Needs to Know* (A Ceres Report, April 2012), page 16, available at http://www.ceres.org/resources/reports/practicing-risk-aware-electricity-regulation/view.

In addition to investment and technology risk, there is the ever looming risk posed by climate change. Although there is no current federal carbon policy, the costs and risks associated with continuing to emit high levels of greenhouse gas emissions are real and growing. Carbon emissions are increasing at an unprecedented rate. The National Oceanic and Atmospheric Administration (NOAA) recently reported that this spring marks the first time a monthly average measurement for carbon dioxide reached 400 parts per million (ppm) in a remote location, indicating that worldwide average concentrations of carbon dioxide will reach 400 ppm by 2016.[38] "That observed increase, independent of the seasonal ups and downs . . . , is due to the accelerating pace of emissions from human activities, particularly the burning of fossil fuels."[39]

Researchers at the National Aeronautics and Space Administration (NASA) have found that 2005 and 2010 are tied for reaching the hottest global temperatures on record.[40] Extreme weather events are increasing: in 2011, a record-breaking $1 billion-plus was spent addressing natural disasters in the U.S. Recently, insurance companies confirmed to members of the U.S. Senate that the costs to taxpayers and businesses from extreme weather will continue to soar because of climate change.[41]

Given the risks we face and the tremendous benefits of energy efficiency and distributed renewable energy, Utah Clean Energy recognizes that it is imperative to weigh the principle of providing proper price signals for energy conservation very heavily in rate design decisions.

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[38] National Oceanic and Atmospheric Administration, *NOAA: Carbon Dioxide Levels Reach Milestone Levels at Arctic Sites* (May 31, 2012), available at http://researchmatters.noaa.gov/news/Pages/arcticCO2.aspx.

[39] *Id.*

[40] National Aeronautics and Space Administration, *NASA Research Finds 2010 Tied for Warmest Year on Record* (January 12, 2011), available at http://www.giss.nasa.gov/research/news/20110112/.
1998, 2002, 2003, 2006, 2007 and 2009 are tied for third, while 2011 comes next. *Id.*; *see also*, National Aeronautics and Space Administration, *NASA Finds 2011 Ninth Warmest on Record* (January 19, 2012), available at http://www.nasa.gov/topics/earth/features/2011-temps.html.

[41] Pat Speer, *Climate Change: Insurers Confirm Growing Risks, Costs* (Insurance Networking News, March 2, 2012), available at http://www.insurancenetworking.com/news/insurance-climate-change-risk-ceres-30007-1.html.

Q: What Utah policies support Utah Clean Energy's rate design position?

A: Recently, Governor Gary 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"[42]: "Modernize the regulatory environment to support sustainable power generation, energy transmission solutions and energy conservation" and "Promote energy efficiency, conservation, and peak consumption reductions."[43]

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*."[44]

In addition to Utah's Governor, the State Legislature has 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.[45]

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

[42] Governor Gary R. Herbert, *Energy Initiatives and Imperatives: Utah's 10-Year Strategic Energy Plan* (March 2, 2011) page 8, available at http://www.utah.gov/governor/docs/10year-stragegic-energy.pdf.
[43] *Id.* at 3.
[44] *Id.* at 30 (emphasis added).
[45] HJR 9, Enrolled Copy (Utah 2009) at lines 85-89, available at http://www.le.state.ut.us/~2009/bills/hbillenr/HJR009.pdf.

include means for encouraging energy conservation. Additionally, Utah Code 54-4-4.1specifically 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?

A: These statues provide the Commission with direction to prioritize energy conservation in designing just and reasonable rates. Additionally, in Docket No. 08-999-05, the Utah Public Service Commission found that Utah Code sections 54-3-1 and 54-4-4.1, along with H.J.R. 9, were sufficient to support the purposes of Title 1 of PURPA[46] 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.[47] 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[48] to Title 1, Subtitle B of PURPA to encourage energy efficiency investments.[49]

Q: What is the PURPA Rate Design Standard?

A: 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

[46] Public Utilities Regulatory Policies Act, 16 U.S.C. 46.
[47] 16 U.S.C. 46, Section 2611.
[48] 16 U.S.C. 46, Section 2621(d)(17).
[49] 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.

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 with other objectives," and "adopting *rate designs that encourage energy efficiency* in each customer class."[50]

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.[51] 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.

Q: What is your conclusion with regard to residential rate design polices?

A: I conclude the Commission must consider and promote energy conservation through rate design in its residential rate design determinations. Both Commission precedent and Utah policies support it.

Q: Does this conclude your testimony?

A: Yes.

[50] 16 U.S.C. 46, Section 2621(d)(17)(B)(iii-iv) (emphasis added).
[51] Docket No. 08-999-05, *Order on the Determination Concerning the PURPA Rate Design Standard*, issued December 16, 2009 at 2.