COMMENTS OF UTAH CLEAN ENERGY
Draft Recommendations from the Joint Outreach Team,
U.S. Department of Energy and Western Power Administration
January 22, 2013

INTRODUCTION

Utah Clean Energy is a non-profit, non-partisan, public interest organization whose mission is to lead and accelerate the clean energy transformation with vision and expertise. Utah Clean Energy appreciates the work of DOE and Western Area Power Administration (Western) to modernize Western's grid, tariffs, and grid operating procedures, and also appreciates the opportunity to provide comments on the Joint Outreach Team's (JOT) draft recommendations. Utah Clean Energy supports the comments of Western Grid Group and the Vote Solar Initiative and provides the following comments to supplement and support their recommendations.

Utah Clean Energy supports the goal of creating a more diversified and cleaner energy system that mitigates fuel volatility risk, mitigates regulatory risk associated with carbon and other harmful emissions, promotes climate stabilization, and provides public health benefits. Western should play a key role in modernizing the grid to facilitate greater percentages of efficiency, demand response, and renewables, while improving reliability, reducing costs for consumers, and increasing grid security.

GENERAL PRINCIPLES

Western explains on its website:

> Western is taking a leadership role in transitioning to a more resilient and flexible electric grid and to achieving much greater coordination among system operators. If we can take greater advantage of clean energy resources, while at the same time reducing costs to customers, we can bring the benefits of increased connectivity and enhanced reliability to more Americans.[1]

Utah Clean Energy commends this forward thinking statement about the direction of Western's leadership. Given the importance of this statement, Utah Clean Energy recommends that the commitment to take greater advantage of clean energy resources in the most cost-effective manner be formally included in the principles guiding the JOT recommendations.

On page 5 of the recommendations, the JOT explains that it decided not to pursue any recommendations specifically targeted at energy efficiency, demand response, or electric vehicles. Demand-side and efficiency resources are least cost among all resources and have no

[1] http://ww2.wapa.gov/sites/western/about/Pages/Definingfuture.aspx.

fuel or emissions risks. The JOT must explain why it decided to exclude recommendations regarding the least cost, least risk resources.

VARIABLE ENERGY INTEGRATION

Western should take an immediate leadership role in implementing an Energy Imbalance Market (EIM) for the benefit of users of its system and of consumers across the West. Western should join with the utilities and balancing areas who support formation of an EIM, establish a timeline for getting the EIM into operation, and work expeditiously to resolve the details of how best to structure and operate the EIM.

Western's recommendations of further study will unnecessarily waste resources and delay reliability improvements and cost savings derived from an EIM. WECC and NREL have already thoroughly studied costs and benefits of an EIM in the West. Their input assumptions and modeling results have been transparent and discussed in public meetings across the region. The Northwest Power Pool and FERC are each undertaking studies to evaluate an EIM. Further study by Western will likely not produce materially different results or change the basis of participation in an EIM.

Existing studies, bids, and JOT's analysis are sufficient to justify moving forward with organizing an EIM. Utah Clean Energy supports the establishment of mechanisms to ensure fair allocation of benefits and cost shifts. Western should actively advance the interests of its customers and stakeholders by taking a lead in helping to establish an EIM in the West. Delaying participation until all details have been worked out—instead of helping to shape the development of an EIM—creates uncertainty for potential market participants and prevents Western's customers from realizing benefits from the start of the market.

TRANSMISSION PRODUCTS AND SERVICES OPPORTUNITIES

Western should strengthen its recommendations regarding its Integrated Resource Planning (IRP) process in order to expedite improvements and develop a plan of action (rather than a plan of evaluation). Specifically, Western should revisit its IRP criteria to include best-practices from both customer-owned and investor-owned utilities, including stakeholder participation. For example, the Northwest Power and Conservation Council's IRP practices have proven very effective in keeping power costs low and minimizing environmental impacts. Western could utilize NPPC guidelines as its baseline in revising its IRP criteria. Utah Clean Energy also recommends consideration of IRP "scenario analysis."

Integrated resource planning is important because it looks not only at resource costs but at risk associated with different resources. Therefore, integrated resource planning should provide Western with a critical and necessary context within which to evaluate how to lead the 21st century energy system transformation, consistent with Western's obligations. Without rigorous planning, customers are at risk for future regulatory costs or stranded asset costs

associated with fuel price volatility and carbon and environmental regulation. Without rigorous planning, customers are at increased risk from the contributions of greenhouse gas emissions to global climate change and the costs of adapting to a warming planet.

Western's IRP criteria should value system flexibility necessary to gracefully and cost-effectively transition to a highly efficient future with much greater investments in zero variable-cost, pollution free renewable resources. Without smart planning criteria, an IRP process can create an untenable conflict between maintaining traditional resource planning and acquisition and intentionally analyzing, evaluating, and addressing the needs of a changing world.

According to the recently released *Western Grid 2050* Report, the Western electricity sector will invest more than $200 billion by 2030 whether a green future unfolds or not.[2]

> Significant investment will be required because coal, gas and nuclear facilities will need to be retired or replaced, population, economic growth, and electrification will drive gross electricity demand up, demand reduction efforts like energy efficiency programs will continue, new electric generation will be built and new transmission will be added. The question is not whether hundreds of billions will be invested but rather how they will be invested.[3]

The *Western Grid 2050* Report highlights the differences between the incompatible Business As Usual (BAU) development path and a Clean Energy Vision (CEV) development path in an effort to analyze the best path forward, given long term considerations of economic, environmental, energy security, and public health consequences.[4]

The central assertion of the *Western Grid 2050* report is critical to a discussion of IRP: "If no choice is made [between BAU and CEV], investment will be driven by *inertia rather than intention* and the grid of 2030 and 2050 will look very much like the grid of 2010. This report asserts that making an intentional choice between the BAU and CEV trajectories now is the responsible course of action."[5]

Western's IRP criteria must incorporate the intentional evaluation of the relative performance, costs, and long-term public interest differences between Business As Usual and a clean energy future. "Before allowing the BAU trajectory to be selected by default, it is appropriate to examine the relative performance of the BAU and CEV trajectories to ensure that

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[2] Carl Linvill, John Candelaria, and Ashley Spalding, *Western Grid 2050: Contrasting Futures, Contrasting Fortunes* (August 22, 2011) (hereinafter *Western Grid 2050*), page 1, available at http://www.cleanenergyvision.org/clean-energy-vision-technical-report/.
[3] *Id.*
[4] *Id.* at 2.
[5] *Western Grid* 2050, page 1 (emphasis added).

hundreds of billions of investment dollars are not inadvertently wasted."[6]

Without rigorous planning guidelines, Western may deepen customers' financial commitments to traditional generation and Business As Usual in a way that is inconsistent with their long-term interests, particularly given the catastrophic consequences of uncurbed greenhouse gas and other emissions, which are ignored at our peril.[7] It is past time for long-term planning to appropriately account for the risks associated with fossil-fuel based generation. That is, it is only appropriate and prudent to account for such risks in a manner consistent with and proportionate to the level (harm plus probability) of the risk.[8]

Integrated resource planning and prudent long-term planning can and should facilitate analysis of the long-term cost-effectiveness of a transition to a clean energy future.[9] To

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[6] *Western Grid* 2050, page 5.

[7] *See, e.g.* Intergovernmental Panel on Climate Change (IPCC), CLIMATE CHANGE 2007: SYNTHESIS REPORT (2007), available at http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm; Academies of Brazil, Canada, China, France, Germany India, Italy, Japan, Mexico, Russia, South Africa, United Kingdom, United States, *G8+5 Academies' joint statement: Climate Change and the Transformation of Energy Technologies for a Low Carbon Future* (May 2009), available at http://www.nationalacademies.org/includes/G8+5energy-climate09.pdf; US Global Change Research Program, *Global climate change impacts in the United States* (2009), available at http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf; and National Academy of Sciences, *Advancing the science of climate change: Report in brief* (2010), available at http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/Science-Report-Brief-final.pdf.

[8] As noted in the Western Grid 2050 report, the consequences of climate change are potentially so costly that taking steps to ensure against them is a justified course of action: "People may disagree on the probability that climate change will lead to dramatic, negative consequences but even if one believes the costly impacts have a low probability of occurring . . . insuring against the risk is necessary. Failure to insure against plausible high impact, negative events has negative economic consequences." *Western Grid 2050*, page 80 (citing Martin L. Weitzman, *Fat-Tailed Uncertainty in the Economics of Catastrophic Climate Change* (February, 2011); *see also,* Frank Ackerman and Elizabeth A. Stanton, *Climate Risks and Carbon Prices: Revising the Social Cost of Carbon* (2011), available at http://www.e3network.org/papers/Climate_Risks_and_Carbon_Prices_executive_summary+full_report+comments.pdf; National Research Council of the National Academies, HIDDEN COSTS OF ENERGY: UPDATED CONSEQUENCES OF ENERGY PRODUCTION AND USE. Washington DC: The National Academies Press (2010); Martin L. Weitzman, Book Review: *The Stern Review of the Economics of Climate Change*, JOURNAL OF ECONOMIC LITERATURE (September 2007); and Martin L. Weitzman, *On modeling and interpreting the economics of catastrophic climate change*, THE REVIEW OF ECONOMICS AND STATISTICS (February 2009), available at http://dash.harvard.edu/bitstream/handle/1/3693423/Weitzman_OnModeling.pdf?sequence=2.

[9] The *Western Grid 2050* Report concludes,

> The West will invest hundreds of billions of dollars in the electricity system by 2030. Aging infrastructure and growing demand will drive large investment regardless of the development trajectory chosen. Differences in investment cost and differences in fuel and carbon cost will drive costs higher in different measure between a BAU and CEV trajectory, but costs and prices will increase in either case.
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> The magnitude of the cost and price differences are highly uncertain because many factors such as the cost of fuel, the cost of carbon, the rate of technological change and the cost of raw materials are highly

accommodate the changing world, changing technologies, and warming climate, Western should consider requiring future integrated resource planning to incorporate Scenario Analysis into the least cost, least risk planning process. In a recent paper written for the National Regulatory Research Institute, David M. Boonin described the differences between integrated resource planning and Scenario Planning:

> IRP identifies a least-cost resource plan aimed at meeting future needs and, in some instances, is broadened to apply to a small band of projected trends—e.g., variations in future loads, fuel costs, resource construction, or purchases power. Utility scenario planning, by contrast, first identifies sharply different views of a distant future—call them scenarios—and then seeks to define a resource strategy that is most successful in addressing all of those potential futures. Although utilities and regulators engaged in resource planning must consider greater uncertainties than ever before, these uncertainties usually fall within a range bounded by high and low industry projections.
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> . . . Scenario planning is prompted by uncertainties typically associated with long-term commitments and multiple options. Scenario planning does not attempt to identify the most likely future. Its purpose instead is (a) to acknowledge that uncertainties can drive the future onto very different paths, and (b) to examine how particular solutions address or fail to address those different futures. Like war games for business or government decisions, scenario planning allows decisionmakers to examine several scenarios and strategies with the goal of accommodating multiple futures with one strategy—to take the first steps down a path that appears most robust, perhaps one that identifies new services and business opportunities as well as one that best avoids disastrous results. Scenario planning allows decisionmakers to rehearse the future and identify high-promise, low-risk responses. As a risk management tool, it helps identify consistently acceptable results under all scenarios.[10]

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uncertain. One's opinion about which future will cost more depends on one's opinion about how these uncertainties will turn out.

If one accepts the notion that unabated carbon emissions are a serious global problem, and if one accepts that the western electricity sector can increase the likelihood that carbon emissions reduction will accelerate if the West does its part to address carbon emission reduction, then the choice to follow a CEV path is clear. If one does not accept this notion then the preference between BAU and CEV trajectories depend on one's opinions about how cost uncertainties will turn out and on one's opinions about the environmental, energy security and public health performances advantages held by a CEV future as highlighted in this report.

Western Grid 2050, page 144.

[10] David M. Boonin, *Utility Scenario Planning: "Always Acceptable" vs. the "Optimal" Solution* (March 2011), pages 1 and 4 (attached), available at http://nrri.org/pubs/multiutility/NRRI_utility_scenario_planning_mar11-07.pdf.

Utah Clean Energy respectfully requests that Western consider Scenario Analysis as a possible component its long-term planning tool-kit. Utah Clean Energy suggests this would be a beneficial process for evaluating planning in a dynamically changing world.

CONCLUSION

Utah Clean Energy appreciates this opportunity to comment and requests that the Department of Energy and Western consider these comments as it develops its final rules to modernize Western's grid and make planning more effective.

Respectfully submitted,

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