



NATURAL RESOURCES DEFENSE COUNCIL  
THE EARTH'S BEST DEFENSE

August 19, 2013

ATTN: Juliette Johnson

Public Utility Commission  
Administrative Hearings Division  
PO Box 2148  
Salem, OR 97308-2148

COMMENTS ON PACIFICORP 2013 DRAFT INTEGRATED RESOURCE PLAN (LC 57)

PacifiCorp has submitted its draft 2013 IRP to the Oregon Public Utility Commission for review. NRDC wishes to offer the following comments., which generally go to whether the utility has sufficiently considered the implications of climate change and initiatives to address it in its Integrated Resource Planning.

Climate Regulation, Cost of Compliance, Interaction with Generating Facility Retrofit Investments

The 2013 IRP discusses Clean Air Act application to greenhouse gases (GHG's) with respect to New Source Review (NSR/PSD), Best Available Control Technology (BACT), and New Source Performance Standards (NSPS) (pp. 33-34); and briefly mentions state-level GHG reduction activities. It further concludes that "Portfolios with extensive coal retirements and coal unit gas conversions, occurring in cases defined by low natural gas prices and/or high carbon dioxide prices (CO<sub>2</sub>), rely heavily on incremental gas resources and are high cost and high risk as compared to portfolios that have no or limited coal retirements and coal unit gas conversions. (p. 201)"

This conclusion is presumably linked with PAC's characterization of "market drivers" of utility resource management and planning activities, which fails to account for recent Administration initiatives. On page 186 PAC describes three such market drivers, including (No. 2):

"Policy makers have not succeeded in passing federal greenhouse gas legislation for consideration by the President. While the U.S. Environmental Protection Agency (EPA) has proposed new source performance standards to regulate greenhouse gas emissions from new sources, it has not established a definitive schedule to propose rules applicable to existing sources. With continued

uncertainty in federal greenhouse gas policy, the advantages of zero emission generation resources are diminished as compared to other resource alternatives.”

Subsequent to PAC issuing this 2013 IRP draft, the President announced (June 25, 2013) direction to EPA to begin rulemaking to govern and limit GHG emissions from existing power plants. Earlier (in May, 2013) the US Interagency Working Group on Social Cost of Carbon<sup>1</sup> issued a significantly higher estimated cost range<sup>2</sup> for CO<sub>2</sub> emissions (an “ingredient” in EPA rulemaking according to OMB).

PAC does not appear to have revised its expectation of federal CO<sub>2</sub> regulation, the President’s direction to EPA and the new EPA Director’s stated resolve to comply notwithstanding. Both its assumptions of the likely prospective cost of CO<sub>2</sub> regulation and the probability of such regulation are outdated. These omissions result in flawed analysis and conclusions with respect to both future operating costs of PAC’s existing thermal plant fleet, and the stranded cost risk of continuing capital investment in the plants.

These omissions should raise questions, for purposes of the OPUC’s acknowledgement of the draft IRP, whether PAC customers should be at risk for company investment decisions that may result in significant future stranded costs.

#### Climate Change-Related Weather Effects and PAC’s Thermal Facilities

The US Department of Energy, in “US Energy Sector Vulnerabilities to Climate Change and Extreme Weather” (July, 2013), identified and partially quantified electric power system vulnerabilities to a range of climate change related phenomena, including: plant operating efficiency during peak heat events together with coincident peak loads; cooling water availability during drought, elevated temperatures and temperature discharge limitations; transmission system efficiencies and potential outages during peak heat events, and vulnerabilities to more intense storms and wildfires.

The report documents events in recent years including operating curtailments, requests to exceed cooling water discharge permits, and unplanned plant outages. Other analyses project US thermal plant system-wide deratings of 4% to 16% by 2060 attributable to heat and drought. USDOE notes that such events can be expected to coincide with each other, with transmissions system efficiency reductions and failures, and with peak system demands for customer cooling loads, “exhibiting compounding effects”. Further, grid interconnections among utility systems and service territories can result in cascading effects when failure in one part of the grid must be compensated for by other utilities that may already be stressed by weather conditions.

These heat and drought events are expected to affect utility operations nationwide, but disproportionately in the, Southwest (with which the Pacific Northwest and the PAC system are

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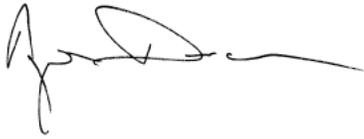
<sup>1</sup> Operating under the authority of Executive Order 12866.

<sup>2</sup> From the prior range of \$7-\$81 per ton to \$12 to \$129 per ton;

interconnected) and Intermountain West, including areas within which most of PAC's thermal facilities are located<sup>3</sup>.

These omissions should raise questions, for purposes of the OPUC's acknowledgement of the draft IRP, whether PAC customers should be at risk for company investment decisions that may result in significant future stranded costs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Angus Duncan', with a long horizontal flourish extending to the right.

Angus Duncan, Policy Consultant

On behalf of the Natural Resources Defense Council

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<sup>3</sup> "Average temperatures across the US have increased during the past 100 years, and the rate of warming has increased over the past several decades." (EPA 2012) The highest increases are concentrated in NE, SW and Intermountain West states. By 2050, one-third of US counties will face water shortages, with the South Great Plains, the Southwest and Intermountain West at greatest risk.