PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 2000
Portland, Oregon 97232

VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY

January 9, 2012

Oregon Public Utility Commission
550 Capital Street NE, Ste. 215
Salem, OR 97301-2551

Attn: Filing Center

RE: **LC 52 – PacifiCorp's Revised 2011 Integrated Resource Plan Action Plan**

Enclosed for filing by PacifiCorp, d.b.a. Pacific Power (Company) is a revised version of PacifiCorp's 2011 Integrated Resource Plan (IRP) Action Plan (Revised Action Plan). A copy of the original action plan as well as a redline version is included to show changes. The Revised Action Plan is in response to concerns raised by the Commission in the December 6, 2011 public meeting and concerns raised by a number of parties to this proceeding.

The Revised Action Plan is supported by the Staff of the Public Utility Commission of Oregon (Staff), the Citizens' Utility Board or Oregon (CUB), Northwest Energy Coalition (NWEC), Renewable Northwest Project (RNP), and Sierra Club (the Parties). These Parties do not represent all of the participants and intervenors in this docket; therefore, the Company respectfully requests a five-day comment period for all parties to file comments on the Revised Action Plan. A copy of this filing is being sent to all parties on the service list.

The Company respectfully requests that, based on the Revised Action Plan, the Commission acknowledge the Company's 2011 IRP.

Formal communications concerning this proceeding should be addressed to the following.

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Please direct any informal inquiries to Joelle Steward, Regulatory Manager, at (503) 813-5542.

Sincerely,

Andrea L Kelly

Andrea L. Kelly
Vice President, Regulation

cc: Service List – LC 52

CERTIFICATE OF SERVICE

I hereby certify that I served a true and correct copy of the foregoing document, on the date indicated below by email and/or US Mail, addressed to said parties at his or her last-known address(es) indicated below.

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Dated: January 9, 2012

Erika Platano
Coordinator, Regulatory Operations

Revised Action Plan - Clean

Table 9.1 – IRP Revised Action Plan Update

Action Item	Category		Action(s)
1	Renewables/ Distributed Generation		**Wind** • Acquire up to 800 MW of wind resources by 2020, dictated by regulatory and market developments such as (1) renewable/clean energy standards, (2) carbon regulations, (3) federal tax incentives, (4) economics, (5) natural gas price forecasts, (6) regulatory support for investments necessary to integrate variable energy resources, and (7) transmission developments. The 800-megawatt level is supported by consideration of regulatory compliance risks and public policy interest in clean energy resources. • In the next IRP, PacifiCorp will track and report the statistics used to calculate capacity contribution from its wind resources as a means of testing the validity of the PLCC method. • Future IRP cycles will include a projection for wind acquisition with and without geothermal until a clearer picture emerges regarding geothermal dry hole risk. • The Company will continue to refine the wind integration modeling approach; establish a technical review committee (TRC) and a schedule and project plan for the next wind integration study. The TRC will be formed and members identified within 30 days of the effective date of the IRP Order. Within 30 days of the effective date of the IRP Order, a schedule for the study will be established, including full opportunity for stakeholder involvement and progress reviews by the TRC that will allow the final study to be submitted with the next IRP. **Geothermal** • The Company identified over 100 MW of geothermal resources as part of a least-cost resource portfolio. Continue to refine resource potential estimates and update resource costs in 2011-2012 for further economic evaluation of resource opportunities. Continue to explicitly include geothermal projects as eligible resources in future all-source RFPs. **Solar** • Evaluate procurement of Oregon solar photovoltaic resources in 2011 via the Company's solar RFP. • Acquire additional Oregon solar resource through RFPs or other means in order to meet the Company's 8.7 MW compliance obligation. • Work with Utah parties to investigate solar program design and deployment issues and opportunities in late 2011 and 2012, using the Company's own analysis of Wasatch Front roof top solar potential and experience with the Oregon solar pilot program. As recommended in the Company's response to comments under Docket No. 07-035-T14, the Company requested that the Utah Commission establish "a process in the fall of 2011 to determine whether a continued or expanded solar program in Utah is appropriate and how that program might be structured."[1]

[1] Rocky Mountain Power, "Re: Docket No. 07-035-T14 – Three year assessment of the Solar Incentive Program", December 15, 2010.

Action Item	Category		Action(s)

			• Investigate, and pursue if cost-effective from an implementation standpoint, commercial/residential solar water heating programs.
			  ◦ The 2011 IRP preferred portfolio includes 30 MW of solar water heating resources by 2020 (18 MW in the east side and 12 MW in the west side).
			• In the context of the Oregon solar RFPs, analyze the trade-offs between early and later acquisition of solar resources.
			Combined Heat & Power (CHP)
			• Pursue opportunities for acquiring biomass CHP resources, primarily through the PURPA Qualifying Facility contracting process.
			  ◦ The preferred portfolio contains 52 MW of CHP resources for 2011-2020 (10 MW in the east side and 42 MW in the west side)
			Energy Storage
			• Proceed with an energy storage demonstration project, subject to Utah Commission approval of the Company's proposal to defer and recover expenditures through the demand-side management surcharge.
			• Initiate a consultant study in 2011 on incremental capacity value and ancillary service benefits of energy storage.
			• Conduct a study of grid flexibility for accommodating variable energy resources (VER) as part of the next IRP filing. The study will include the following elements:
			  – Definition of and suggest metrics by which to measure flexibility (applicable to all flexibility resources including: thermal, demand response (DR), and storage).
			  – An inventory of existing flexibility needs and the adequacy or capability of existing assets to meet them.
			  – A projection of flexibility needs in the IRP timeframe to successfully integrate project VER additions.
			  – A comparison of benefits and costs of obtaining flexibility from the range of flexibility resources (conventional thermal, DR, storage, etc).
			Renewable Portfolio Standard Compliance
			• Develop and refine strategies for renewable portfolio standard compliance in California and Washington.
			• PacifiCorp will expand the next IRP to include discussion of RPS compliance strategies and the role of REC sales and purchases. The Company will be selective in its discussion to avoid conflict between the IRP, RPS Implementation Plan and RPS Compliance Report.

2	**Intermediate / Base-load Thermal Supply-side Resources**		• Acquire a combined-cycle combustion turbine resource at the Lake Side site in Utah by the summer of 2014; the plant is proposed to be constructed by CH2M Hill E&C, Inc. ("CH2M Hill") under the terms of an engineering, procurement, and construction (EPC) contract. This resource corresponds to the 2014 CCCT proxy resource included in the 2011 IRP preferred portfolio. • PacifiCorp will reexamine the timing and type of post-2014 gas resources and other resource changes as part of the 2011 business planning process and preparation of the 2011 IRP Update. The reexamination will

Action Item	Category		Action(s)
			include documentation of capital cost and operating cost tradeoffs between resource types. • Consider siting additional gas-fired resources in locations other than Utah. Investigate resource availability issues including water availability, permitting, transmission constraints, access to natural gas, and potential impacts of elevation. • Issue an all-source RFP in early 2012 for potential acquisition of peaking/intermediate/baseload resources by the summer of 2016 to fill any remaining resource need indicated by an updated load and resource balance reflecting the results of DSM RFPs, acquisition of front office transactions, reserve margin sensitivity analysis, and other relevant information.
3	**Firm Market Purchases**		• Acquire economic front office transactions or power purchase agreements as needed through summer2016. – Resources will be procured through multiple means, such as periodic mini-RFPs that seek resources less than five years in term, and bilateral negotiations. • Closely monitor the near-term and long-term need for front office transactions and adjust planned acquisitions as appropriate based on market conditions, resource costs, and load expectations. – Actively search for market options that could cost-effectively defer acquisition or construction of a 2016 CCCT resource.
4	**Plant Efficiency Improvements**		• Continue to pursue economic plant upgrade projects—such as turbine system improvements and retrofits—and unit availability improvements to lower operating costs and help meet the Company's future CO_2 and other environmental compliance requirements. – Successfully complete the dense-pack coal plant turbine upgrade projects scheduled for 2011 and 2012, totaling 31 MW. – Complete the remaining turbine upgrade projects by 2021, totaling an incremental 34.2 MW, subject to continuing review of project economics. – Seek to meet the Company's updated aggregate coal plant net heat rate improvement goal of 478 Btu/kWh by 2019.[2] • Continue to monitor turbine and other equipment technologies for cost-effective upgrade opportunities tied to future plant maintenance schedules. • For the next IRP complete a study of cost-effective and reliable production efficiency opportunities at generating facilities (station load reduction opportunities not currently being captured in the IRP) where the Company has sole ownership of the facility. The resource opportunities identified will be modeled against competing demand and supply-side resources in the next IRP. Those selected will be targeted for completion by 2015 provided plant outages are not required.

[2] *PacifiCorp Energy Heat Rate Improvement Plan*, April 2010.

Action Item	Category		Action(s)
5	**Class 1 DSM**		Acquire at least 140 MW of incremental cost-effective demand-side management resource by 2013 and up to 250 MW by 2015. – Finalize an agreement for the commercial curtailment product (which includes customer-owned standby generation opportunities). If cost effective, the company will file for approval by the 3rd quarter of 2012. – Complete an analysis of the economic feasibility of Class 1 irrigation load control in the west by the second quarter of 2012. If the analysis suggests Class 1 irrigation load control is economic in the west, the Company will source delivery of a program through a Request for Proposal concurrent with the re-sourcing of Class 1 irrigation load control program delivery in the east by the third quarter of 2012. – Issue an RFP in 2012 to re-procure the delivery of the Cool Keeper program following the 2013 control season. For the RFP, the Company will seek market approaches acceptable to Utah regulators to expand the program beyond its current level beginning in 2014.
6	**Class 2 DSM**		• Apply the 2011 IRP conservation analysis as the basis for the Company's next Washington I-937 conservation target setting submittal to the Washington Utilities and Transportation Commission for the 2012-2013 biennium. The Company may refine the conservation analysis and update the conservation forecast and biennial target as appropriate prior to submittal based on final avoided cost decrement analysis and other new information. • Acquire at least 900 MW[3]and up to 1,800 MW of cost-effective Class 2 programs by 2020, equivalent to at least 4,533 GWh and up to 9,066 GWh. Acquire at least 520 MW and up to 1000 MW of cost-effective Class 2 DSM by 2016. – By 1st quarter of 2012 file a residential home residential home comparison report program in Utah and Washington, and investigate broader applications by the end of 2014 that can be implemented by 2016. – By 3rd quarter 2012 the Company will submit for commission approval a plan to acquire energy efficiency resources from the Company's Special Contract customers in Utah and Idaho that can be reliably verified and delivered by 2016, and will pursue those resources provided the Commissions in those states approve a cost-recovery mechanism for the plan. – By 1st quarter 2012 issue a system-wide RFP (excluding Oregon) for specific direct install and other direct distribution programs targeting savings from the residential and small commercial sectors that can be delivered beginning in 2013._The Company will seek to acquire all cost-effective resources that are available from the RFP. The cost effectiveness analysis will consider any adverse impact on the existing DSM programs. The results of the RFP will be known prior to the Company seeking acknowledgement of the final short list for the all-source RFP. The Company will promptly file for commission approvals to implement the cost-effective programs. • For the next IRP, prior to beginning modeling and screening of DSM, and as part of the public input process, provide an analysis of alternatives to the current supply curve bundling and ramping methods for modeling

[3] Adjusted to reflect 2011 IRP's initial MW contribution from Class 2 resources expected to be acquired in Oregon (reduces the MW contribution from Oregon from 562 MWs by 2020 to 283 MWs, a 279 MW reduction.

Action Item	Category		Action(s)
			energy efficiency measures. • By the end of 2012 provide an analysis of the sufficiency of current staffing levels to achieve programmatic cost effective energy efficiency targets established in this plan. • Leverage the distribution energy efficiency analysis of 19 distribution feeders in Washington (conducted for PacifiCorp by Commonwealth Associates, Inc.) for analysis of potential distribution energy efficiency in other areas of PacifiCorp's system provided the Company receives approval by the appropriate Commission for recovery of the study cost through the demand-side customer efficiency surcharge.. (The Washington distribution energy efficiency study final report was completed December 26, 2011.) – Include in the 2013 IRP a detailed plan and schedule to implement cost-effective CVR in each state as approved by the state. – By May 1, 2012 the company will schedule a work shop in each of its major states with commission staff to present findings of the Washington CVR evaluation. – By the end of 2012 perform a high-level screening of 40 percent of its distribution circuits in each of the states to identify circuits where cost effective energy savings appears viable and detailed circuit study is warranted provided the Company receives approval by the appropriate Commission for recovery of the study cost through the demand-side customer efficiency surcharge. – By the end of 2013 perform a high-level screening of the remaining 60 percent of its distribution circuits in each of the states to identify circuits where cost-effective energy savings appear viable and detailed circuit study is warranted provided the Company receives approval by the appropriate state commission for recovery of the study cost through the demand-side customer efficiency surcharge. – In the 2013 IRP include the results of the CVR evaluation to date.
7	**Class 3 DSM**		• During 2012 update the Conservation Potential Assessment to more accurately reflect Class 1 and 3 DSM resource opportunities in regards to 1) market and regulatory capabilities and climates in each state, 2) interactions within and between Class 1 and Class 3 resource potentials identified, and 3) the impact of existing Class 3 programs on product potential. • During 2012 have a third-party consultant review and prepare a report on how other utilities treat price-responsive products in their resource planning process (for example, as an adjustment to their load forecast and/or as a firm planning resource), and prepare a recommendation on how the Company might apply contributions from price products to help defer investments in other resource options cost-effectively. • For the 2013 IRP provide a sensitivity analysis, similar to portfolio development Case 31 in the 2011 IRP, that more accurately reflects incremental Class 3 product opportunities (incremental to Class 1 products, other Class 3 products, and to existing impacts of Class 3 products the Company is already running). • Implement in Utah and Washington (subject to regulatory approvals) residential information pilots to test the effects of providing customers greater amounts of usage information on the quantity of electricity they consume. The pilots will leverage the existing AMR metering currently available in these states. – Pilots will consist of three test groups each receiving varying levels of usage information:

Action Item	Category		Action(s)
			o Group 1 - Home comparison reports and energy conservation suggestions o Group 2 - Daily usage data through Home Energy Monitoring software (key component to pricing products) o Group 3 – Home comparison reports, energy savings suggestions, and daily usage data through Home Energy Monitoring software Pilots will be implemented in 2012, run throughout 2013, and an analysis and recommendation prepared in 2014, prior to the development of the 2015 IRP. • If the analysis of Class 1 irrigation load control in the west (see action item 5) indicates that such programs are non-economic, investigate, through a pilot program in Oregon a Class 3 irrigation time-of-use program as an alternative approach for managing irrigation loads in the west.
8	**Planning and Modeling Process Improvements**		• Incorporate plug-in electric vehicles and Smart Grid technologies as a discussion topic for the next IRP. •
9	**Coal**		• The Company will host a technical workshop for stakeholders and the commissioners on February 17, 2012 for stakeholders that have a confidentiality agreement in place. – At the technical workshop, the Company will review with stakeholders the methodology, assumptions and recently completed analysis of upcoming Naughton 3 emission control investments. The Naughton 3 analysis will be provided to stakeholders, subject to confidentiality agreements, as soon as practicable. – At the technical workshop, the Company will present the methodology, assumptions and results of a Coal Replacement Study screening analysis performed for Jim Bridger 3, Jim Bridger 4, Hunter 1 at a minimum. The Company will complete the analysis on as many other units as possible within the time constraints. The Company will also present information pertaining to planned investments in the Craig and Hayden facilities of which the Company has ownership share but does not have operational responsibilities. – The screening analysis will be performed using a spreadsheet model that assumes a gas-fired CCCT, scaled to the size of the coal unit being analyzed, replaces the coal unit in 2015. – The screening analysis will include line-item results showing annual capital costs and fixed and variable operating costs for each coal unit and the replacement CCCT resource. – The screening analysis will be performed on three different market scenarios pairing varying levels of natural gas prices and CO2 costs. At least one scenario will include a low gas/high CO_2 pairing. – The screening analysis will report a rank order of the nominal levelized net present value revenue requirement (PVRR) benefit/cost on a per kW-mo basis for each scenario. – The Company will make available to stakeholders that have signed appropriate confidentiality agreements the assumptions and results of the screening Study five business days before the technical workshop.

Action Item	Category		Action(s)
			• The Company will include in its 2011 IRP update an updated Coal Replacement Study focusing on those units analyzed in the screening analysis as described above. – The updated Coal Replacement Study will be performed using the System Optimizer model and will explore a range of natural gas prices and CO2 costs in varying combinations. – The updated Coal Replacement Study will discuss and evaluate flexibility in the emerging environmental regulations and the associated economics that may present options to the Company to avoid early compliance costs by offering to shut down certain individual units prior to the end of their currently approved depreciable lives. – In the updated Study, the Company will provide a concise explanation and transparent example of its treatment of post-2030 costs and will provide an analysis that shows the results of treatments of environmental investments made prior to 2015 both avoidable and unavoidable. • *The Company recognizes that Commission acknowledgement of this action item does not impact Commission disposition of environmental investments by the Company.*
10	**Transmission**		• In the scenario definition phase of the IRP process, the Company will address with stakeholders the inclusion of any transmission projects on a case-by-case basis. – Develop an evaluation process and criteria for evaluating transmission additions. – Review with stakeholders which transmission projects should be included and why. – Based on the outcome of these steps, PacifiCorp will provide appropriate transmission segment analysis for which the Company requests acknowledgement (including Wallula to McNary and Sigurd to Red Butte).
11	**Planning Reserve Margin**		• For the 2011 IRP update include the results of a System Optimizer portfolio sensitivity analysis comparing the resource and cost impacts of a 12 percent versus 13 percent planning reserve margin.

Revised Action Plan – Redline Changes

Table 9.1 – IRP Revised Action Plan Update

~~Action items anticipated to extend beyond the next two years, or occur after the next two years, are indicated in blue italic font. Transmission action plan items have been moved to Chapter 10, Transmission Action Plan.~~

Action Item	Category	~~Timing~~	Action(s)
1	Renewables/ Distributed Generation	~~2011-2020~~	**Wind** • Acquire up to 800 MW of wind resources by 2020, dictated by regulatory and market developments such as (1) renewable/clean energy standards, (2) carbon regulations, (3) federal tax incentives, (4) economics, (5) natural gas price forecasts, (6) regulatory support for investments necessary to integrate variable energy resources, and (7) transmission developments. The 800-megawatt level is supported by consideration of regulatory compliance risks and public policy interest in clean energy resources. • In the next IRP, PacifiCorp will track and report the statistics used to calculate capacity contribution from its wind resources as a means of testing the validity of the PLCC method. • Future IRP cycles will include a projection for wind acquisition with and without geothermal until a clearer picture emerges regarding geothermal dry hole risk. • The Company will continue to refine the wind integration modeling approach; establish a technical review committee (TRC) and a schedule and project plan for the next wind integration study. The TRC will be formed and members identified within 30 days of the effective date of the IRP Order. Within 30 days of the effective date of the IRP Order, a schedule for the study will be established, including full opportunity for stakeholder involvement and progress reviews by the TRC that will allow the final study to be submitted with the next IRP. **Geothermal** • The Company identified over 100 MW of geothermal resources as part of a least-cost resource portfolio. Continue to refine resource potential estimates and update resource costs in 2011-2012 for further economic evaluation of resource opportunities. Continue to explicitly include geothermal projects as eligible resources in future all-source RFPs. **Solar** • Evaluate procurement of Oregon solar photovoltaic resources in 2011 via the Company's solar RFP. • Acquire additional Oregon solar resource through RFPs or other means in order to meet the Company's 8.7 MW compliance obligation. • Work with Utah parties to investigate solar program design and deployment issues and opportunities in late 2011 and 2012, using the Company's own analysis of Wasatch Front roof top solar potential and experience with the Oregon solar pilot program. As recommended in the Company's response to comments under Docket No. 07-035-T14, the Company requested that the Utah Commission establish "a process in the fall of 2011 to determine whether a continued or expanded solar program in Utah is appropriate and how that program might be structured."[1]

[1] Rocky Mountain Power, "Re: Docket No. 07-035-T14 – Three year assessment of the Solar Incentive Program", December 15, 2010.

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<tr><th>Action Item</th><th>Category</th><th>~~Timing~~</th><th>Action(s)</th></tr>
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- Investigate, and pursue if cost-effective from an implementation standpoint, commercial/residential solar ~~hot~~ water heating programs.
  - The 2011 IRP preferred portfolio includes 30 MW of solar ~~hot~~ water heating resources by 2020 (18 MW in the east side and 12 MW in the west side).
- In the context of the Oregon solar RFPs, analyze the trade-offs between early and later acquisition of solar resources.

Combined Heat & Power (CHP)

- Pursue opportunities for acquiring biomass CHP resources, primarily through the PURPA Qualifying Facility contracting process.
  - The preferred portfolio contains 52 MW of CHP resources for 2011-2020 (10 MW in the east side and 42 MW in the west side)

Energy Storage

- Proceed with an energy storage demonstration project, subject to Utah Commission approval of the Company's proposal to defer and recover expenditures through the demand-side management surcharge.
- Initiate a consultant study in 2011 ~~or 2012~~ on incremental capacity value and ancillary service benefits of energy storage.
- Conduct a study of grid flexibility for accommodating variable energy resources (VER) as part of the next IRP filing. The study will include the following elements:
  - Definition of and suggest metrics by which to measure flexibility (applicable to all flexibility resources including: thermal, demand response (DR), and storage).
  - An inventory of existing flexibility needs and the adequacy or capability of existing assets to meet them.
  - A projection of flexibility needs in the IRP timeframe to successfully integrate project VER additions.
  - A comparison of benefits and costs of obtaining flexibility from the range of flexibility resources (conventional thermal, DR, storage, etc).

Renewable Portfolio Standard Compliance

- Develop and refine strategies for renewable portfolio standard compliance in California and Washington.
- PacifiCorp will expand the next IRP to include discussion of RPS compliance strategies and the role of REC sales and purchases. The Company will be selective in its discussion to avoid conflict between the IRP, RPS Implementation Plan and RPS Compliance Report.

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<tr><td>2</td><td>Intermediate / Base-load Thermal</td><td>~~2014-2016~~</td><td>

- Acquire a combined-cycle combustion turbine resource at the Lake Side site in Utah by the summer of 2014; the plant is proposed to be constructed by CH2M Hill E&C, Inc. ("CH2M Hill") under the terms of an engineering, procurement, and construction (EPC) contract. This resource corresponds to the 2014 CCCT

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Action Item	Category	~~Timing~~	Action(s)
	Supply-side Resources		proxy resource included in the 2011 IRP preferred portfolio. • ~~Issue an all-source RFP in late 2011 or early 2012 for acquisition of peaking/intermediate/baseload resources by the summer of 2016.~~ – ~~This acquisition corresponds to the 597 MW 2016 CCCT proxy resource (F Class 2x1).~~ • PacifiCorp will reexamine the timing and type of post-2014 gas resources and other resource changes as part of the 2011 business planning process and preparation of the 2011 IRP Update. The reexamination will include documentation of capital cost and operating cost tradeoffs between resource types. • Consider siting additional gas-fired resources in locations other than Utah. Investigate resource availability issues including water availability, permitting, transmission constraints, access to natural gas, and potential impacts of elevation. • Issue an all-source RFP in early 2012 for potential acquisition of peaking/intermediate/baseload resources by the summer of 2016 to fill any remaining resource need indicated by an updated load and resource balance reflecting the results of DSM RFPs, acquisition of front office transactions, reserve margin sensitivity analysis, and other relevant information.
3	Firm Market Purchases	~~2011-2020~~	• Acquire ~~up to 1,400 MW of~~ economic front office transactions or power purchase agreements as needed ~~until the beginning of~~ through summer ~~2014~~2016.~~, unless cost-effective long-term resources are available and their acquisition is in the best interests of customers.~~ – Resources will be procured through multiple means, such as periodic mini-RFPs that seek resources less than five years in term, and bilateral negotiations. • Closely monitor the near-term and long-term need for front office transactions and adjust planned acquisitions as appropriate based on market conditions, resource costs, and load expectations. – Actively search for market options that could cost-effectively defer acquisition or construction of a 2016 CCCT resource.
4	Plant Efficiency Improvements	~~2011-2020~~	• Continue to pursue economic plant upgrade projects—such as turbine system improvements and retrofits—and unit availability improvements to lower operating costs and help meet the Company's future CO_2 and other environmental compliance requirements. – Successfully complete the dense-pack coal plant turbine upgrade projects scheduled for 2011 and 2012, totaling 31 MW. – Complete the remaining turbine upgrade projects by 2021, totaling an incremental 34.2 MW, subject to

Action Item	Category	~~Timing~~	Action(s)
			continuing review of project economics. – Seek to meet the Company's updated aggregate coal plant net heat rate improvement goal of 478 Btu/kWh by 2019.[2] • Continue to monitor turbine and other equipment technologies for cost-effective upgrade opportunities tied to future plant maintenance schedules. • For the next IRP complete a study of cost-effective and reliable production efficiency opportunities at generating facilities (station load reduction opportunities not currently being captured in the IRP) where the Company has sole ownership of the facility. The resource opportunities identified will be modeled against competing demand and supply-side resources in the next IRP. Those selected will be targeted for completion by 2015 provided plant outages are not required.
5	Class 1 DSM	~~2011-2020~~	Acquire ~~up~~ at ~~to~~ least ~~250~~ 140 MW of incremental cost-effective ~~Class 1~~ demand-side management ~~programs for implementation in the 2011-2020 time frame~~resource by 2013 and up to 250 MW by 2015. – ~~For 2012-2013, pursue up to 80 MW of~~Finalize an agreement for the commercial curtailment product (which includes customer-owned standby generation opportunities). ~~being procured as an outcome of the 2008 DSM RFP~~If cost effective, the company will file for approval by the 3rd quarter of 2012. – ~~Depending on final economics, pursue the remaining 170 MW for 2012-2020, consisting of additional curtailment opportunities and irrigation/residential direct load control.~~ – Complete an analysis of the economic feasibility of Class 1 irrigation load control in the west by the second quarter of 2012. If the analysis suggests Class 1 irrigation load control is economic in the west, the Company will source delivery of a program through a Request for Proposal concurrent with the re-sourcing of Class 1 irrigation load control program delivery in the east by the third quarter of 2012. – Issue an RFP in 2012 to re-procure the delivery of the Cool Keeper program following the 2013 control season. For the RFP, the Company will seek market approaches acceptable to Utah regulators to expand the program beyond its current level beginning in 2014.
6	Class 2 DSM	~~2011-2020~~	• ~~Acquire up to 1,200 MW of cost-effective Class 2 programs by 2020, equivalent to about 4,533 GWh. This includes programs in Oregon acquired through the Energy Trust of Oregon.~~ – ~~Procure through the currently active DSM RFP and subsequent DSM RFPs.~~ • Apply the 2011 IRP conservation analysis as the basis for the Company's next Washington I-937 conservation target setting submittal to the Washington Utilities and Transportation Commission for the 2012-2013 biennium. The Company may refine the conservation analysis and update the conservation forecast and biennial target as appropriate prior to submittal based on final avoided cost decrement analysis and other new information. • Acquire at least 900 MW[3]and up to 1,800 MW of cost-effective Class 2 programs by 2020, equivalent to at

[2] *PacifiCorp Energy Heat Rate Improvement Plan*, April 2010.

Action Item	Category	~~Timing~~	Action(s)
			least 4,533 GWh and up to 9,066 GWh. Acquire at least 520 MW and up to 1000 MW of cost-effective Class 2 DSM by 2016. – By 1st quarter of 2012 file a residential home residential home comparison report program in Utah and Washington, and investigate broader applications by the end of 2014 that can be implemented by 2016. – By 3rd quarter 2012 the Company will submit for commission approval a plan to acquire energy efficiency resources from the Company's Special Contract customers in Utah and Idaho that can be reliably verified and delivered by 2016, and will pursue those resources provided the Commissions in those states approve a cost-recovery mechanism for the plan. – By 1st quarter 2012 issue a system-wide RFP (excluding Oregon) for specific direct install and other direct distribution programs targeting savings from the residential and small commercial sectors that can be delivered beginning in 2013. The Company will seek to acquire all cost-effective resources that are available from the RFP. The cost effectiveness analysis will consider any adverse impact on the existing DSM programs. The results of the RFP will be known prior to the Company seeking acknowledgement of the final short list for the all-source RFP. The Company will promptly file for commission approvals to implement the cost-effective programs. • For the next IRP, prior to beginning modeling and screening of DSM, and as part of the public input process, provide an analysis of alternatives to the current supply curve bundling and ramping methods for modeling energy efficiency measures. • By the end of 2012 provide an analysis of the sufficiency of current staffing levels to achieve programmatic cost effective energy efficiency targets established in this plan. • Leverage the distribution energy efficiency analysis of 19 distribution feeders in Washington (conducted for PacifiCorp by Commonwealth Associates, Inc.) for analysis of potential distribution energy efficiency in other areas of PacifiCorp's system provided the Company receives approval by the appropriate Commission for recovery of the study cost through the demand-side customer efficiency surcharge.. (The Washington distribution energy efficiency study final report ~~is~~ was ~~scheduled for~~ completed ~~ion by the end of~~ ~~May~~December 26, 2011.) – Include in the 2013 IRP a detailed plan and schedule to implement cost-effective CVR in each state as approved by the state. – By May 1, 2012 the company will schedule a work shop in each of its major states with commission staff to present findings of the Washington CVR evaluation. – By the end of 2012 perform a high-level screening of 40 percent of its distribution circuits in each of the states to identify circuits where cost effective energy savings appears viable and detailed circuit study is warranted provided the Company receives approval by the appropriate Commission for recovery of the study cost through the demand-side customer efficiency surcharge. – By the end of 2013 perform a high-level screening of the remaining 60 percent of its distribution circuits

[3] Adjusted to reflect 2011 IRP's initial MW contribution from Class 2 resources expected to be acquired in Oregon (reduces the MW contribution from Oregon from 562 MWs by 2020 to 283 MWs, a 279 MW reduction.

Action Item	Category	~~Timing~~	Action(s)
			in each of the states to identify circuits where cost-effective energy savings appear viable and detailed circuit study is warranted provided the Company receives approval by the appropriate state commission for recovery of the study cost through the demand-side customer efficiency surcharge. – In the 2013 IRP include the results of the CVR evaluation to date.
7	Class 3 DSM	~~2011-2020~~	• ~~Continue to evaluate Class 3 DSM program opportunities.~~ ~~Evaluate program specification and cost-effectiveness in the context of IRP portfolio modeling[4], and monitor market changes that may remove the voluntary nature of Class 3 pricing products.~~ • During 2012 update the Conservation Potential Assessment to more accurately reflect Class 1 and 3 DSM resource opportunities in regards to 1) market and regulatory capabilities and climates in each state, 2) interactions within and between Class 1 and Class 3 resource potentials identified, and 3) the impact of existing Class 3 programs on product potential. • During 2012 have a third-party consultant review and prepare a report on how other utilities treat price-responsive products in their resource planning process (for example, as an adjustment to their load forecast and/or as a firm planning resource), and prepare a recommendation on how the Company might apply contributions from price products to help defer investments in other resource options cost-effectively. • For the 2013 IRP provide a sensitivity analysis, similar to portfolio development Case 31 in the 2011 IRP, that more accurately reflects incremental Class 3 product opportunities (incremental to Class 1 products, other Class 3 products, and to existing impacts of Class 3 products the Company is already running). • Implement in Utah and Washington (subject to regulatory approvals) residential information pilots to test the effects of providing customers greater amounts of usage information on the quantity of electricity they consume. The pilots will leverage the existing AMR metering currently available in these states. – Pilots will consist of three test groups each receiving varying levels of usage information: o Group 1 - Home comparison reports and energy conservation suggestions o Group 2 - Daily usage data through Home Energy Monitoring software (key component to pricing products) o Group 3 – Home comparison reports, energy savings suggestions, and daily usage data through Home Energy Monitoring software Pilots will be implemented in 2012, run throughout 2013, and an analysis and recommendation prepared in 2014, prior to the development of the 2015 IRP. • If the analysis of Class 1 irrigation load control in the west (see action item 5) indicates that such programs are non-economic, investigate, through a pilot program in Oregon a Class 3 irrigation time-of-use program as an

[4] ~~Supply curve development indicates that when the stacking effect of Class 1 and Class 3 resource interactions are considered, the selected resources within both Classes of DSM diminish.~~

Action Item	Category	~~Timing~~	Action(s)
			alternative approach for managing irrigation loads in the west.
8	Planning and Modeling Process Improvements	~~2011-2012~~	• ~~Continue to refine the System Optimizer modeling approach for analyzing coal utilization strategies under various environmental regulation and market price scenarios.~~ • ~~Continue to coordinate with PacifiCorp's transmission planning department on improving transmission investment analysis using the IRP models.~~ • Incorporate plug-in electric vehicles and Smart Grid technologies as a discussion topic for the next IRP. • ~~Continue to refine the wind integration modeling approach; establish a technical review committee and a schedule and project plan for the next wind integration study.~~
9	Coal		• The Company will host a technical workshop for stakeholders and the commissioners on February 17, 2012 for stakeholders that have a confidentiality agreement in place. – At the technical workshop, the Company will review with stakeholders the methodology, assumptions and recently completed analysis of upcoming Naughton 3 emission control investments. The Naughton 3 analysis will be provided to stakeholders, subject to confidentiality agreements, as soon as practicable. – At the technical workshop, the Company will present the methodology, assumptions and results of a Coal Replacement Study screening analysis performed for Jim Bridger 3, Jim Bridger 4, Hunter 1 at a minimum. The Company will complete the analysis on as many other units as possible within the time constraints. The Company will also present information pertaining to planned investments in the Craig and Hayden facilities of which the Company has ownership share but does not have operational responsibilities. – The screening analysis will be performed using a spreadsheet model that assumes a gas-fired CCCT, scaled to the size of the coal unit being analyzed, replaces the coal unit in 2015. – The screening analysis will include line-item results showing annual capital costs and fixed and variable operating costs for each coal unit and the replacement CCCT resource. – The screening analysis will be performed on three different market scenarios pairing varying levels of natural gas prices and CO2 costs. At least one scenario will include a low gas/high CO_2 pairing. – The screening analysis will report a rank order of the nominal levelized net present value revenue requirement (PVRR) benefit/cost on a per kW-mo basis for each scenario. – The Company will make available to stakeholders that have signed appropriate confidentiality agreements the assumptions and results of the screening Study five business days before the technical workshop. • The Company will include in its 2011 IRP update an updated Coal Replacement Study focusing on those units analyzed in the screening analysis as described above. – The updated Coal Replacement Study will be performed using the System Optimizer model and will explore a range of natural gas prices and CO2 costs in varying combinations. – The updated Coal Replacement Study will discuss and evaluate flexibility in the emerging environmental regulations and the associated economics that may present options to the Company to avoid early

Action Item	Category	~~Timing~~	Action(s)
			compliance costs by offering to shut down certain individual units prior to the end of their currently approved depreciable lives. – In the updated Study, the Company will provide a concise explanation and transparent example of its treatment of post-2030 costs and will provide an analysis that shows the results of treatments of environmental investments made prior to 2015 both avoidable and unavoidable. • *The Company recognizes that Commission acknowledgement of this action item does not impact Commission disposition of environmental investments by the Company.*
10	**Transmission**		• In the scenario definition phase of the IRP process, the Company will address with stakeholders the inclusion of any transmission projects on a case-by-case basis. – Develop an evaluation process and criteria for evaluating transmission additions. – Review with stakeholders which transmission projects should be included and why. – Based on the outcome of these steps, PacifiCorp will provide appropriate transmission segment analysis for which the Company requests acknowledgement (including Wallula to McNary and Sigurd to Red Butte).
11	**Planning Reserve Margin**		• For the 2011 IRP update include the results of a System Optimizer portfolio sensitivity analysis comparing the resource and cost impacts of a 12 percent versus 13 percent planning reserve margin.

Original Action Plan (March 31, 2011)

Table 9.1 – IRP Action Plan Update

Action items anticipated to extend beyond the next two years, or occur after the next two years, are indicated in blue italic font. Transmission action plan items have been moved to Chapter 10, Transmission Action Plan.

Action Item	Category	Timing	Action(s)
1	Renewables/ Distributed Generation	2011-2020	**Wind** • *Acquire up to 800 MW of wind resources by 2020, dictated by regulatory and market developments such as (1) renewable/clean energy standards, (2) carbon regulations, (3) federal tax incentives, (4) economics, (5) natural gas price forecasts, (6) regulatory support for investments necessary to integrate variable energy resources, and (7) transmission developments. The 800-megawatt level is supported by consideration of regulatory compliance risks and public policy interest in clean energy resources.* **Geothermal** • The Company identified over 100 MW of geothermal resources as part of a least-cost resource portfolio. Continue to refine resource potential estimates and update resource costs in 2011-2012 for further economic evaluation of resource opportunities. Continue to include geothermal projects as eligible resources in future all-source RFPs. **Solar** • Evaluate procurement of Oregon solar photovoltaic resources in 2011 via the Company's solar RFP. • *Acquire additional Oregon solar resource through RFPs or other means in order to meet the Company's 8.7 MW compliance obligation.* • Work with Utah parties to investigate solar program design and deployment issues and opportunities in late 2011 and 2012, using the Company's own analysis of Wasatch Front roof top solar potential and experience with the Oregon solar pilot program. As recommended in the Company's response to comments under Docket No. 07-035-T14, the Company requested that the Utah Commission establish "a process in the fall of 2011 to determine whether a continued or expanded solar program in Utah is appropriate and how that program might be structured."[1] • *Investigate, and pursue if cost-effective from an implementation standpoint, commercial/residential solar hot water heating programs.* – *The 2011 IRP preferred portfolio includes 30 MW of solar hot water heating resources by 2020 (18 MW in the east side and 12 MW in the west side).* **Combined Heat & Power (CHP)** • *Pursue opportunities for acquiring biomass CHP resources, primarily through the PURPA Qualifying Facility contracting process.*

[1] Rocky Mountain Power, "Re: Docket No. 07-035-T14 – Three year assessment of the Solar Incentive Program", December 15, 2010.

Action Item	Category	Timing	Action(s)
			– *The preferred portfolio contains 52 MW of CHP resources for 2011-2020 (10 MW in the east side and 42 MW in the west side)* **Energy Storage** • Proceed with an energy storage demonstration project, subject to Utah Commission approval of the Company's proposal to defer and recover expenditures through the demand-side management surcharge. • Initiate a consultant study in 2011 or 2012 on incremental capacity value and ancillary service benefits of energy storage. **Renewable Portfolio Standard Compliance** • Develop and refine strategies for renewable portfolio standard compliance in California and Washington.
2	**Intermediate / Base-load Thermal Supply-side Resources**	**2014-2016**	• Acquire a combined-cycle combustion turbine resource at the Lake Side site in Utah by the summer of 2014; the plant is proposed to be constructed by CH2M Hill E&C, Inc. ("CH2M Hill") under the terms of an engineering, procurement, and construction (EPC) contract. This resource corresponds to the 2014 CCCT proxy resource included in the 2011 IRP preferred portfolio. • Issue an all-source RFP in late 2011 or early 2012 for acquisition of peaking/intermediate/baseload resources by the summer of 2016. – This acquisition corresponds to the 597 MW 2016 CCCT proxy resource (F Class 2x1). • PacifiCorp will reexamine the timing and type of post-2014 gas resources and other resource changes as part of the 2011 business planning process and preparation of the 2011 IRP Update. – *Consider siting additional gas-fired resources in locations other than Utah. Investigate resource availability issues including water availability, permitting, transmission constraints, access to natural gas, and potential impacts of elevation.*
3	**Firm Market Purchases**	**2011-2020**	• Acquire up to 1,400 MW of economic front office transactions or power purchase agreements as needed until the beginning of summer 2014, unless cost-effective long-term resources are available and their acquisition is in the best interests of customers. – Resources will be procured through multiple means, such as periodic mini-RFPs that seek resources less than five years in term, and bilateral negotiations. • *Closely monitor the near-term and long-term need for front office transactions and adjust planned acquisitions as appropriate based on market conditions, resource costs, and load expectations.*
4	**Plant Efficiency Improvements**	**2011-2020**	• Continue to pursue economic plant upgrade projects—such as turbine system improvements and retrofits—and unit availability improvements to lower operating costs and help meet the Company's future CO_2 and other environmental compliance requirements. – Successfully complete the dense-pack coal plant turbine upgrade projects scheduled for 2011 and 2012, totaling 31 MW.

Action Item	Category	Timing	Action(s)
			– *Complete the remaining turbine upgrade projects by 2021, totaling an incremental 34.2 MW, subject to continuing review of project economics.* – *Seek to meet the Company's updated aggregate coal plant net heat rate improvement goal of 478 Btu/kWh by 2019.*[2] – *Continue to monitor turbine and other equipment technologies for cost-effective upgrade opportunities tied to future plant maintenance schedules.*
5	Class 1 DSM	2011-2020	Acquire up to 250 MW of cost-effective Class 1 demand-side management programs for implementation in the 2011-2020 time frame. – For 2012-2013, pursue up to 80 MW of the commercial curtailment product (which includes customer-owned standby generation opportunities) being procured as an outcome of the 2008 DSM RFP. – Depending on final economics, pursue the remaining 170 MW for 2012-2020, consisting of additional curtailment opportunities and irrigation/residential direct load control.
6	Class 2 DSM	2011-2020	• *Acquire up to 1,200 MW of cost-effective Class 2 programs by 2020, equivalent to about 4,533 GWh. This includes programs in Oregon acquired through the Energy Trust of Oregon.* – *Procure through the currently active DSM RFP and subsequent DSM RFPs.* • Apply the 2011 IRP conservation analysis as the basis for the Company's next Washington I-937 conservation target setting submittal to the Washington Utilities and Transportation Commission for the 2012-2013 biennium. The Company may refine the conservation analysis and update the conservation forecast and biennial target as appropriate prior to submittal based on final avoided cost decrement analysis and other new information. • *Leverage the distribution energy efficiency analysis of 19 distribution feeders in Washington (conducted for PacifiCorp by Commonwealth Associates, Inc.) for analysis of potential distribution energy efficiency in other areas of PacifiCorp's system. (The Washington distribution energy efficiency study final report is scheduled for completion by the end of May 2011.)*
7	Class 3 DSM	2011-2020	• Continue to evaluate Class 3 DSM program opportunities. – Evaluate program specification and cost-effectiveness in the context of IRP portfolio modeling[3], and monitor market changes that may remove the voluntary nature of Class 3 pricing products.

[2] *PacifiCorp Energy Heat Rate Improvement Plan*, April 2010.
[3] Supply curve development indicates that when the stacking effect of Class 1 and Class 3 resource interactions are considered, the selected resources within both Classes of DSM diminish.

Action Item	Category	Timing	Action(s)
8	**Planning and Modeling Process Improvements**	**2011-2012**	• Continue to refine the System Optimizer modeling approach for analyzing coal utilization strategies under various environmental regulation and market price scenarios. • Continue to coordinate with PacifiCorp's transmission planning department on improving transmission investment analysis using the IRP models. • Incorporate plug-in electric vehicles and Smart Grid technologies as a discussion topic for the next IRP. • Continue to refine the wind integration modeling approach; establish a technical review committee and a schedule and project plan for the next wind integration study.