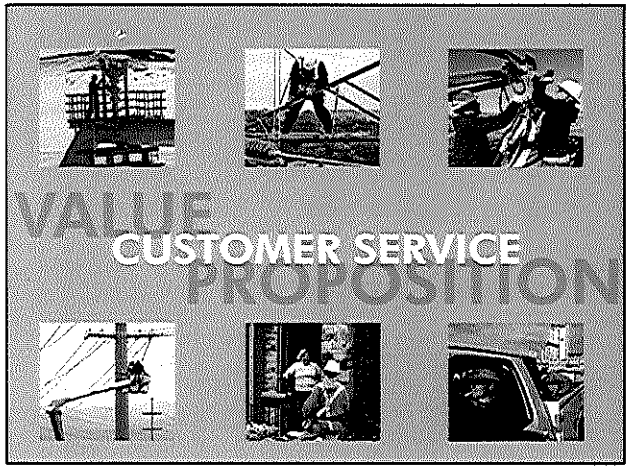

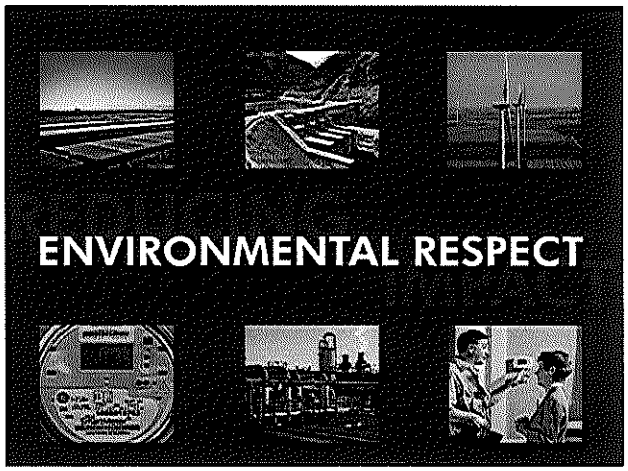

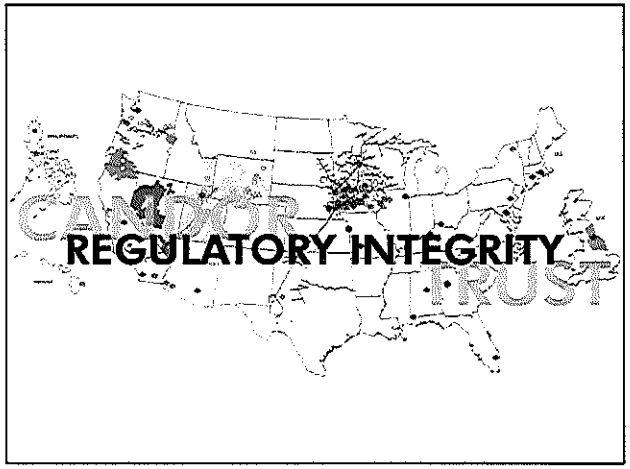

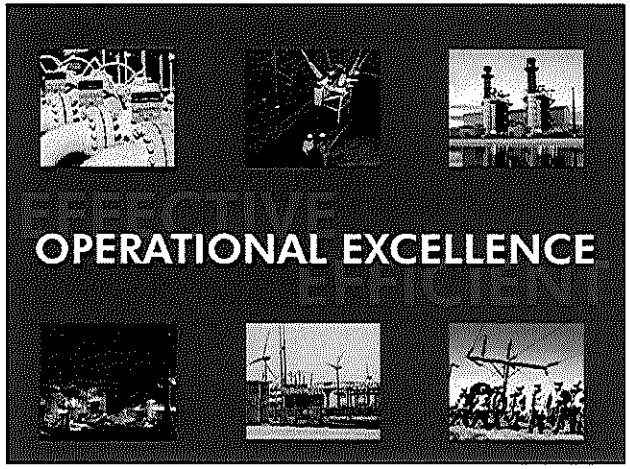

Docket No. 15-035-T06

Schedule 37 Technical Conference

June 12, 2015

PACIFICORP

Pacific Power | Rocky Mountain Power

2015 Utah Schedule 37 Filing

- Annual Schedule 37 update filed April 30, 2015, 30 days after the 2015 IRP was filed
- Updated the sufficiency/deficiency period and the proxy plant costs to reflect 2015 IRP assumptions
  - Deficiency period moved from 2027 to 2028
  - Fuel costs from the March 2015 Official Forward Price Curve
  - Updated wind integration costs based on the 2014 Wind Integration Study (annual costs calculated in Q3 2014 Schedule 38 Compliance Filing)
- Updated inputs used for GRID modeling
  - March 2015 Official Forward Price Curve
  - Load forecast dated September 2014
  - Coal price forecast dated September 2014
  - Hydro forecast dated April 2015
  - Updated historical information through December 2014, impacting:
    - Operating characteristics of thermal plants (heat rate coefficients, planned and forced outage rates)
    - Contract deliveries
    - Market capacity
    - Short term transmission
    - Wind generation profile
  - Updated to include all executed long term contracts (e.g. new signed QFs)
  - Regulating margin based on 2014 Wind Integration Study

Docket 14-035-T04 Commission Orders Related to Avoided Capacity Costs During Sufficiency Period

- October 21, 2014 Order approved elimination of SCCT costs from sufficiency period:

  "Among other things, this order approves PacifiCorp's proposal to eliminate the annual fixed costs of a SCCT during the period of resource sufficiency. This action is based, at least in part, on our Schedule 38 Order that finds wholesale power purchased to meet capacity constraints already contains capacity value; therefore, adding the SCCT value to the wholesale market price is excessive. We note, however, the peak and off-peak rates PacifiCorp proposes for Schedule 37 are equal during the resource sufficiency period (with the SCCT costs removed). In other words, the capacity value contained in the wholesale power purchase to meet peak hour constraints is averaged across all hours in the proposed rates...To examine the effects of this particular difference in the Schedule 37 and 38 methods, *we direct PacifiCorp to file a potential adjustment to the Schedule 37 method that produces distinct peak and off-peak prices in the resource sufficiency period.*" (Emphasis added)

- December 30, 2014 Order on Review stated:

  "While it remains our goal to produce logically consistent avoided cost pricing in Schedule 37 and Schedule 38, we recognize the record in this case presents no alternative means, aside from the fractional SCCT value, for calculating the full Schedule 37 avoided capacity cost during resource constrained months in the period of resource sufficiency. Thus, pending receipt of additional evidence in a future proceeding, we will maintain the SCCT cost component in Schedule 37 to account for the value of capacity avoided in the constrained months during years in which PacifiCorp is otherwise resource sufficient. *We await the presentation of evidence in future Schedule 37 proceedings describing any alternative approach for valuing avoided capacity costs and peak and off-peak avoided costs during the period of resource sufficiency.*" (Emphasis added)

Proposed Schedule 37 Method Change

- Proposed changes address method used to calculate sufficiency period avoided costs
  - Elimination of fixed costs of a simple cycle combustion turbine ("SCCT") in calculation of on-peak avoided cost rates during sufficiency period, consistent with the 2015 IRP preferred portfolio
  - Avoided costs calculated using the GRID model include displacement of Front Office Transactions ("FOTs") from 2015 IRP
  - On-peak and off-peak avoided costs differentiated based on the relationship of on-peak and off-peak Palo Verde ("PV") market prices to flat PV market prices

- All three changes are consistent with avoided cost prices under Schedule 38

Schedule 37 Method

	Current Schedule 37 Method	Proposed Changes
Determination of Sufficiency / Deficiency Period	Based on timing of the next deferrable resource identified in the Company's most recent IRP or IRP update.	
Sufficiency Period: Avoided Energy Costs	Calculated in GRID using two system dispatch simulations; one without any new resources and one with an additional generic 10 average megawatt (aMW) resource included at zero cost.	GRID simulations include FOTs from IRP, which are partially displaced by the addition of the generic resource.
Sufficiency Period: Avoided Capacity Costs	Fixed cost of a SCCT included in months that are short resources in GRID.	Elimination of fixed cost of SCCT. Avoided capacity costs included in GRID scenarios with the avoidance of market purchases.
Deficiency Period: Avoided Energy Costs	Based on the running costs of the proxy CCCT.	
Deficiency Period: Avoided Capacity Costs	Based on fixed costs of a proxy resource as identified in the Company's most recent IRP or IRP update, currently a CCCT.	
Capacity Contribution	Avoided capacity costs are adjusted to reflect capacity contribution of intermittent wind and solar resources. Wind:20.5% Fixed solar:68% Tracking solar: 84%	
Integration Costs	Integration costs for wind and solar QFs are included as a reduction to avoided costs.	
Pricing structure	Volumetric seasonal on-peak and off-peak rates (cents/kWh). During sufficiency period, off-peak prices are equal to GRID avoided costs. On-peak prices are GRID costs plus the SCCT costs.	Volumetric seasonal on-peak and off-peak rates (cents/kWh). GRID avoided costs differentiated into on-peak and off-peak prices based on the relationship of on-peak and off-peak PV market price to flat PV prices.

Schedule 37 Update Impact on Avoided Costs

- Schedule 37 update results in lower avoided costs compared to current rates
  - Routine updates reduce avoided costs between approximately $5.85/MWh - $9.88/MWh, depending on resource type
  - Proposed change to eliminate SCCT from sufficiency period reduces avoided costs between approximately $0.68/MWh - $5.68/MWh, depending on resource type

20 Year (2016 to 2035) Levelized Prices (Nominal) @ 6.66% Discount Rate ($/MWH)				
	BASE LOAD	WIND	SOLAR FIXED	SOLAR TRACKING
Current Rates (Includes SCCT costs during sufficiency period)	$54.33	$38.61	$52.09	$55.82
Updated Rates (Includes SCCT costs during sufficiency period)	$45.01	$32.75	$42.67	$45.94
	($9.32)	($5.85)	($9.42)	($9.88)
Proposed Rates (No SCCT costs, differentiated on/off-peak prices)	$39.34	$32.08	$38.53	$40.26
Impact of Removing SCCT Costs	($5.67)	($0.68)	($4.14)	($5.68)