BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

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In the Matter of PacifiCorp, dba Pacific Power, 2019 Transition Adjustment Mechanism

Docket No. UE-339

Opening Testimony of Kevin C. Higgins

on behalf of

Calpine Energy Solutions, LLC

June 11, 2018

1		OPENING TESTIMONY OF KEVIN C. HIGGINS
2		
3	Intro	oduction
4	Q.	Please state your name and business address.
5	A.	My name is Kevin C. Higgins. My business address is 215 South State
6		Street, Suite 200, Salt Lake City, Utah, 84111.
7	Q.	By whom are you employed and in what capacity?
8	A.	I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies
9		is a private consulting firm specializing in economic and policy analysis
10		applicable to energy production, transportation, and consumption.
11	Q.	On whose behalf are you testifying in this phase of the proceeding?
12	A.	My testimony is being sponsored by Calpine Energy Solutions, LLC
13		("Calpine Solutions"). Calpine Solutions is a retail energy supplier that serves
14		commercial and industrial end-use customers in 18 states, the District of
15		Columbia, and Baja California, Mexico. Calpine Solutions serves more than
16		15,000 retail customer sites nationwide, with an aggregate load in excess of 4,500
17		MW. Calpine Solutions' retail customers are located in the service territories of
18		more than 55 utilities. In Oregon, Calpine Solutions is currently serving
19		customers in the service territories of PacifiCorp and Portland General Electric
20		("PGE").
21	Q.	Please describe your professional experience and qualifications.
22	A.	My academic background is in economics, and I have completed all
23		coursework and field examinations toward a Ph.D. in Economics at the University

1		of Utah. In addition, I have served on the adjunct faculties of both the University
2		of Utah and Westminster College, where I taught undergraduate and graduate
3		courses in economics. I joined Energy Strategies in 1995, where I assist private
4		and public sector clients in the areas of energy-related economic and policy
5		analysis, including evaluation of electric and gas utility rate matters.
6		Prior to joining Energy Strategies, I held policy positions in state and local
7		government. From 1983 to 1990, I was economist, then assistant director, for the
8		Utah Energy Office, where I helped develop and implement state energy policy.
9		From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County
10		Commission, where I was responsible for development and implementation of a
11		broad spectrum of public policy at the local government level.
12	Q.	Have you ever testified before this Commission?
12 13	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon,
12 13 14	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM")
12 13 14 15	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM),
12 13 14 15 16	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011
12 13 14 15 16 17	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011 TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also participated
12 13 14 15 16 17 18	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011 TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also participated in six PacifiCorp general rate cases, UE 263 (2013), UE 246 (2012), UE 210
12 13 14 15 16 17 18 19	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011 TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also participated in six PacifiCorp general rate cases, UE 263 (2013), UE 246 (2012), UE 210 (2009), UE 179 (2006), UE 170 (2005), and UE 147 (2003), as well as the
12 13 14 15 16 17 18 19 20	Q. A.	Have you ever testified before this Commission?Yes. I have testified in twenty-seven prior proceedings in Oregon,including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM")proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM),UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011)TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also participatedin six PacifiCorp general rate cases, UE 263 (2013), UE 246 (2012), UE 210(2009), UE 179 (2006), UE 170 (2005), and UE 147 (2003), as well as thePacifiCorp Five-Year Opt-Out case, UE 267 (2013).
 12 13 14 15 16 17 18 19 20 21 	Q. A.	Have you ever testified before this Commission? Yes. I have testified in twenty-seven prior proceedings in Oregon, including nine previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011) TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also participated in six PacifiCorp general rate cases, UE 263 (2013), UE 246 (2012), UE 210 (2009), UE 179 (2006), UE 170 (2005), and UE 147 (2003), as well as the PacifiCorp Five-Year Opt-Out case, UE 267 (2013). In addition, I have testified in six previous PGE general rate cases, UE 335

23	Q.	What are the primary conclusions and recommendations in your testimony?
22		PacifiCorp's Five-year Opt-Out program.
21		access service; and the calculation of the Consumer Opt-Out Charge for
20		adjustments; the treatment of Renewable Energy Certificates ("RECs") for direct
19		including the calculation of the Schedule 294, 295, and 296 transition
18	A.	My testimony focuses on issues pertaining to direct access service,
17	Q.	What is the purpose of your testimony in this proceeding?
16	<u>Over</u>	view and Conclusions
15		
14		affidavits that have been filed with the Federal Energy Regulatory Commission.
13		Virginia, Washington, West Virginia, and Wyoming. I have also prepared
12		North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Utah,
11		Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New York,
10		Arizona, Arkansas, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky,
9		utility rates and regulatory policy before state utility regulators in Alaska,
8	A.	Yes. I have testified in approximately 200 proceedings on the subjects of
7	Q.	Have you testified before utility regulatory commissions in other states?
6		Facility Contracting and Pricing, UM 1610 (2015).
5		proceeding, UM 1050 (2016) and Phase II of the Investigation into Qualifying
4		Avoided Cost Pricing, UM 1802 (2017), the 2017 Inter-Jurisdictional Allocation
3		I also testified in the Investigation into PacifiCorp's Non-Standard
2		the PGE restructuring proceeding, UE 115 (2001).
1		180 (2006). In addition, I testified in the PGE Opt-Out case, UE 236 (2012) and

1	A.	I offer the following primary conclusions and recommendations:
2		(1) I recommend that the process for transferring RECs from PacifiCorp
3		to Electricity Service Suppliers ("ESSs") to account for the migration of direct
4		access customers, as described in the Direct Testimony of PacifiCorp witness
5		Michael G. Wilding, be approved by the Commission. The stakeholder-
6		developed process described by Mr. Wilding reflects a constructive resolution of a
7		longstanding dispute over the problem of direct access customers paying twice for
8		Renewable Portfolio Standard ("RPS")-related resources: once from their "ESS"
9		and a second time from PacifiCorp, which banks the RECs paid for by direct
10		access customers for future use by cost-of-service customers. The REC transfer
11		process described by Mr. Wilding reasonably resolves this problem by
12		transferring RECs from PacifiCorp to ESSs for the benefit of their direct access
13		customers, who pay for the RECs through the transition adjustment.
14		(2) I continue to believe that the most appropriate treatment for the
15		Schedule 200 projections in years 6 through 10, as used in the calculation of the
16		Consumer Opt-Out Charge, should decline 2.36% per year consistent with the
17		effects of accumulated depreciation on a fixed pool of assets. At the same time, I
18		recognize and appreciate that the Commission's Order 17-444 directed that a
19		middle ground approach should be adopted in this 2019 TAM. Accordingly, I
20		have prepared such a middle ground approach, which is presented in Exhibit
21		Calpine Solutions/105, which I recommend be adopted by the Commission in this
22		case.

1		PacifiCorp's approach to estimating the Schedule 200 projections in years
2		6 through 10 ignores the Commission's directive in Order 17-444 to identify a
3		middle ground and should be rejected. Similarly, the Company's arguments that
4		its approach is justified by its historical pattern of fixed generation costs should
5		also be rejected, because the Company's analysis fails to remove all relevant
6		incremental generation costs, including environmental upgrade costs.
7		
8	The 7	Fransition Adjustment and Ongoing Valuation
9	Q.	What is the purpose of retail direct access and transition adjustments under
10		Oregon's direct access law?
11	А.	Under a retail direct access program, the direct access customer continues
12		to use the utility's distribution system but does not use the utility as its power
13		supplier, but instead obtains energy from another supplier. Oregon's direct access
14		law was initially enacted in 1999. In its findings supporting the legislation, the
15		legislative assembly declared that "retail electricity consumers that want and have
16		the technical capability should be allowed, either on their own or through
17		aggregation, to take advantage of competitive electricity markets as soon as is
18		practicable." ¹ The direct access law requires that all nonresidential retail
19		customers be allowed direct access to competitive markets by purchasing
20		generation services from Commission-certified ESSs. ² The law requires the
21		Commission to implement rates that charge or credit the direct access customer an

¹ Or. Laws 1999, Ch. 865. ² See ORS 757.600(6), (16), -601(1), -649(1)(a).

1		amount related to the utility's stranded generation assets that prevents
2		"unwarranted shifting of costs." ³
3		The direct access law is intended to allow nonresidential customers to
4		have the option to control their generation supply if they prefer to purchase
5		generation from sources other than the incumbent utility's portfolio. For
6		example, customers may wish to purchase more renewable energy than is
7		available through PacifiCorp's cost-of-service portfolio. Alternatively, some
8		customers may have a strong corporate preference for participating in the
9		wholesale electricity market.
10	Q.	By way of background, please summarize the status of direct access in
11		PacifiCorp's service territory.
11 12	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the
11 12 13	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the direct access program in PacifiCorp's service territory remains at very low
11 12 13 14	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the direct access program in PacifiCorp's service territory remains at very low participation levels. In my opinion, this low level of participation is due in large
 11 12 13 14 15 	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the direct access program in PacifiCorp's service territory remains at very low participation levels. In my opinion, this low level of participation is due in large part to a transition adjustment regime that results in a negative value proposition
 11 12 13 14 15 16 	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the direct access program in PacifiCorp's service territory remains at very low participation levels. In my opinion, this low level of participation is due in large part to a transition adjustment regime that results in a negative value proposition for participating customers. PacifiCorp's shopping participation levels in 2017
 11 12 13 14 15 16 17 	A.	PacifiCorp's service territory.Sixteen years after the implementation of direct access in Oregon, thedirect access program in PacifiCorp's service territory remains at very lowparticipation levels. In my opinion, this low level of participation is due in largepart to a transition adjustment regime that results in a negative value propositionfor participating customers. PacifiCorp's shopping participation levels in 2017were only 4.7% of eligible shopping load, far below the 17.2% participation rate
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 11 12 13 14 15 16 17 18 19 	A.	PacifiCorp's service territory. Sixteen years after the implementation of direct access in Oregon, the direct access program in PacifiCorp's service territory remains at very low participation levels. In my opinion, this low level of participation is due in large part to a transition adjustment regime that results in a negative value proposition for participating customers. PacifiCorp's shopping participation levels in 2017 were only 4.7% of eligible shopping load, far below the 17.2% participation rate in the PGE territory. ⁴ Oregon businesses continue to face material barriers to acquiring market-priced power in PacifiCorp's territory, despite the proximity to

 ³ ORS 757.607(1), (2).
 ⁴ Source: Oregon Public Utilities Commission, Status Report: Oregon Electric Industry Restructuring (June 2017). *See* Exhibit Calpine Solutions/101, Higgins/1.

1	major wholesale trading hubs, and despite the plain objectives of the Oregon
2	Legislature in enacting direct access legislation in 1999. ⁵
3	Currently, PacifiCorp offers one-year, three-year, and five-year direct
4	access programs. None of these programs has achieved significant participation
5	levels. Prior to the 2016 shopping year, customers in the PacifiCorp territory
6	could only choose between the one-year and three-year programs, pursuant to
7	which the direct access customer pays the ESS for generation supply and
8	continues to pay PacifiCorp for Schedule 200 generation costs, subject to a
9	transition adjustment discussed later in my testimony. At the conclusion of the
10	one-year or three-year term the customer is required to return to cost-of-service or
11	elect a new one-year or three-year term. Under this regime, the customer never
12	stops paying for PacifiCorp's generation resources.
13	PacifiCorp's five-year opt-out program was initiated for service
14	commencing on January 1, 2016, after the Company was ordered to adopt such a
15	program in Order No. 12-500. In that order, the Commission required PacifiCorp
16	to file a tariff for a five-year opt out program that would allow a qualified
17	customer to go to direct access and pay transition charges for the next five years,
18	and then to be no longer subject to transition adjustments. After the conclusion of
19	payments of five years of transition adjustments under the program, the customer
20	would only pay PacifiCorp for distribution delivery service.

⁵ ORS 757.601(1) provides that "[a]ll retail electricity consumers of an electric company, other than residential electricity consumers, shall be allowed direct access beginning on March 1, 2002."

1		In contrast to the one-year and three-year programs, the five-year opt-out
2		program allows customers to migrate to 100% market prices for generation
3		services (purchased from an ESS) without any remaining obligations to
4		compensate PacifiCorp for generation resources it has acquired for bundled
5		customers. PGE has had a five-year opt-out program for several years and it has
6		been relatively successful. However, as I will discuss below, the structure of the
7		PacifiCorp five-year opt-out approved by the Commission in UE 267 and UE 296
8		exacerbates the negative value proposition typically found in the Company's one-
9		year and three-year programs. Consequently, despite the inherent appeal of a
10		five-year opt-out program, the five-year opt-out program approved for PacifiCorp
11		is not – and is unlikely to become – an economically viable proposition for most
12		eligible customers. Consistent with this expectation, PacifiCorp indicated in its
13		Response to Calpine Solutions Data Request 1.12.c.iii that only a single customer
14		is enrolled in the five-year program. ⁶
15	Q.	What is your understanding of the purpose of the transition adjustment?
16	А.	The purpose of the transition adjustment is to provide the appropriate
17		credit or charge for customers who choose direct access service. The transition
18		adjustment is applied either through Schedule 294, Schedule 295, or Schedule
19		296. Schedule 294 is applied to customers who choose a one-year direct access
20		option, Schedule 295 is applied to customers who choose a three-year direct

²⁰

⁶ See Exhibit Calpine Solutions/102, Higgins/3, which contains PacifiCorp's Response to Calpine Solutions Data Request 1.12.c.iii.

1	access option, and Schedule 296 is applied to customers who select the five-year
2	opt-out that was authorized in UE-267.
3	PacifiCorp's transition adjustment calculation is a form of Ongoing
4	Valuation as prescribed in OAR 860-038-0140. According to OAR 860-038-
5	0005(41):
6 7 8 9	Ongoing Valuation means the process of determining transition costs or benefits for a generation asset by comparing the value of the asset output at projected market prices for a defined period to an estimate of the revenue requirement of the asset for the same time period.
10	The logical premise behind Ongoing Valuation is to credit or charge direct
11	access customers the difference between market prices and cost-of-service rates.
12	The design logic in this approach places customers in an economically "break
13	even" position with respect to the choice of direct access service; that is, if market
14	prices are below cost-of-service rates at the time the transition adjustment is
15	calculated, the direct access customer is charged the difference via the transition
16	adjustment. Conversely, if market prices are <i>above</i> cost-of-service rates, the
17	direct access customer is <i>credited</i> the difference via the transition adjustment.
18	The corollary to this design logic is that it holds non-participating
19	customers harmless, as the utility, which buys and sells billions of kilowatt-hours
20	over the course of a year, should be able to dispose of the energy freed up by
21	direct access through market transactions. In the case of PacifiCorp, the transition
22	adjustment analysis consists of evaluating the impact of 25 MW of direct access
23	load on a 10,000 MW system in the calculation of Schedules 294 and 295, and 50
24	MW of direct access load in the calculation of Schedule 296.

Q. Please explain how direct access can be viable if the design logic of Ongoing Valuation places direct access customers in an economically break even position.

A. For customers who attempt to select direct access service on a year-to-year 4 basis, the Ongoing Valuation approach indeed makes direct access a tenuous 5 value proposition. A one-year direct access selection may be economically viable 6 7 in certain circumstances, such as, for example, if some market movement occurs during the shopping window, after the transition adjustment has been set. 8 Additionally, other customers may wish to purchase more renewable energy than 9 is available through PacifiCorp's cost-of-service portfolio. Alternatively, some 10 customers may have a strong corporate preference for participating in the market, 11 despite the barrier of contending with a "break even" transition adjustment design. 12 But in general, the year-to-year "break even" model is not particularly attractive 13 for customers. In Oregon, the only direct access program that has shown signs of 14 sustained success is PGE's five-year opt-out program, in which customers pay 15 PGE's Ongoing Valuation transition adjustment for five years, and then migrate 16 fully to market prices (with no further transition adjustments). As I noted above, 17 pursuant to the Commission's order in UE-267, PacifiCorp implemented a five-18 year opt-out program effective January 1, 2016. However, the design of the 19 transition adjustment for the PacifiCorp five-year opt-out differs in important 20 respects from the current PGE program and exacerbates the negative value 21 proposition generally found in PacifiCorp's one-year and three-year programs. 22

1		Consequently, in its current form, the PacifiCorp five-year opt-out program is
2		unlikely to be viable for most eligible customers.
3		
4	Calc	ulation of the One-Year and Three-Year Transition Adjustments (Schedules
5	<u>294 a</u>	and 295)
6	Q.	What is the basic structure of PacifiCorp's current charges for generation
7		services?
8	A.	PacifiCorp assesses rates for generation services to cost-of-service
9		customers on two different rate schedules. First, the Company charges customers
10		for its net power costs in Schedule 201, which includes long-term power purchase
11		contracts, short-term market purchases, and fuel for power generation. Second,
12		PacifiCorp charges customers for all other generation costs, including the costs of
13		its rate-based generation investments, in Schedule 200.
14	Q.	How is PacifiCorp's transition adjustment mechanism for Schedules 294 and
15		295 calculated?
16	A.	PacifiCorp's transition adjustment charges (or credits) direct access
17		customers the difference between PacifiCorp's net power cost (as reflected in
18		Schedule 201) and the estimated market value of the electricity that is freed up
19		when a customer chooses direct access service. ⁷ This is calculated by subtracting
20		the former from the latter, after adjusting the latter for line losses to reflect its

⁷ Direct access customers in PacifiCorp's service territory already pay for the Company's fixed generation costs through Schedule 200. Thus, the transition adjustment is calculated by subtracting *net power costs* from the value of freed-up energy rather than subtracting *total generation costs* from the value of freed-up energy. Calculating the transition adjustment in this manner is logically equivalent to subtracting total generation costs from the value of freed-up energy while *not* charging direct access customers for Schedule 200.

1		value at the point of retail delivery. If the result is a positive number, the
2		difference is applied as a credit to the direct access customer. If the result is a
3		negative number, the difference is applied as a charge to the direct access
4		customer.
5	Q.	If Schedule 294 or 295 is a credit, does that mean that PacifiCorp's
6		generation costs are less expensive than the market and that direct access
7		customers are being paid to leave cost-of-service rates?
8	А.	No. PacifiCorp direct access customers must continue to pay for the
9		Company's fixed generation costs through Schedule 200. A Schedule 294 credit
10		simply means that the Company's net power costs are less than market prices.
11		Only if the Schedule 294 credit were greater than the Schedule 200 charge could
12		it be accurate to state that direct access customers were being "paid" to leave cost-
13		of-service rates. That is far from the case today. For example, PacifiCorp's
14		sample 2019 Schedule 294 rate for Schedule 48-P customers is an average credit
15		of \$6.98/MWh during Heavy Load Hours and an average credit of \$4.50/MWh
16		during Light Load Hours, while the average Schedule 200 charge for these
17		customers in 2019 is projected to be \$28.63/MWh.8 Thus, the Schedule 200
18		charge is far greater than the transition adjustment credit, meaning that the direct

⁸ Sources: The average Schedule 294 credits are derived from PacifiCorp's Confidential 15 day workpapers, GRID analysis files. See Exhibit Calpine Solutions/102, Higgins/1 for the relevant source material. The average Schedule 200 rate for 2018 is provided by PacifiCorp in the Confidential Attachment 2.14-1 to PacifiCorp's Response to Calpine Solutions Data Request 2.14. Certain non-confidential information from this attachment is presented in Exhibit Calpine Solutions/103. *See* Exhibit Calpine Solutions/103, Higgins/3 for the Schedule 200 charge referenced in my testimony. PacifiCorp consented to my use of this figure as non-confidential in this testimony.

1		access customer makes a net payment to PacifiCorp for generation resources that
2		the customer does not use.
3	Q.	Please continue with your explanation of how PacifiCorp's Schedule 294 and
4		295 transition adjustment mechanism is calculated.
5	A.	The transition adjustment is calculated using PacifiCorp's GRID model.
6		According to PacifiCorp's tariff, the estimated market value of the electricity that
7		is freed up when a customer chooses direct access service is determined by
8		running two system simulations – one simulation with PacifiCorp serving the
9		direct access load and one simulation with the Company not serving the direct
10		access load. At the present time, for the Schedule 294 one-year and Schedule 295
11		three-year programs, these simulations are run assuming direct access occurs in
12		25 MW decrements, which are shaped using the load shape of the rate schedule
13		being analyzed for purposes of determining its Schedule 294 or 295 credit (or
14		charge). The difference between the two scenarios is used to calculate the impact
15		on PacifiCorp's total system, which is then used to determine the "weighted
16		market value of the energy" freed up due to direct access. ⁹ The weighted market
17		value of the energy is then compared to the customer's price under Schedule 201
18		to determine the Schedule 294 or 295 credit (charge).
19	Q.	Does PacifiCorp's Ongoing Valuation calculations for Schedules 294 and 295
20		result in a "break even" proposition for customers?

⁹ *See* PacifiCorp Tariff, Schedule 294, p. 1.

1	A.	Typically not. I explained in Docket UE 264 that this approach does not
2		adhere strictly to the definition of Ongoing Valuation articulated in OAR 860-
3		038-0005(41). Ongoing Valuation requires that transition costs or benefits for a
4		generation asset be determined by comparing the value of the asset output at
5		projected market prices to an estimate of the revenue requirement of the asset.
6		PacifiCorp's use of the GRID model to calculate transition costs does not produce
7		a valuation based exclusively on projected market prices as required in the OAR,
8		but a valuation that is based on a blend of market prices and avoided costs of
9		thermal generation costs. Because the incremental cost of PacifiCorp's thermal
10		generation is typically less than market prices, blending market prices and the
11		Company's thermal costs has historically produced a lower valuation of freed-up
12		energy than would occur if market prices alone were used for this purpose.
13		Because the value of freed-up energy is a credit against the cost-of-service price
14		for direct access customers in the calculation of Schedules 294 and 295, using a
15		lower price for this purpose increases the transition adjustment charge (or
16		alternatively, reduces the transition adjustment credit), all other things being
17		equal. Indeed, because shopping customers must pay an ESS market prices for
18		power, if the value of freed-up energy used in the calculation of the transition
19		adjustment is less than the actual market price direct access customers pay, then it
20		creates a negative value proposition for year-to-year shoppers rather than the
21		break-even proposition inherent in the logic of Ongoing Valuation. ¹⁰ I note that
22		in the current low market price environment, the last several TAMs have been an

¹⁰ I addressed this point at some length in UE 264. See Reply Testimony of Kevin C, Higgins, pp.16-21.

1		exception to this historical pattern, in that the GRID-calculated costs for 2017-
2		2019 are greater than projected market prices on average.
3	Q.	Have refinements been developed to mitigate the impact of including thermal
4		costs in the calculation of Schedules 294 and 295?
5	A.	Yes. In UE-199 (2009 TAM), a Stipulation approved by the Commission
6		in Order No. 08-543 modified the valuation of the thermal generation assumed to
7		be backed down due to direct access by providing for a partial weighting using
8		market prices. Specifically, the parties agreed as follows:
9 10 11 12 13 14 15 16 17 18 19		15. <u>Transition Adjustment</u> : The Parties agree to modify the calculation of the Transition Adjustment for direct access in two ways: (1) the Company will relax the market cap limitations in the GRID model by 15 MW at Mid-Columbia and 10 MW at COB to determine the value of the freed up power; and (2) any remaining monthly thermal generation that is backed down for assumed direct access load will be priced at the simple monthly average of the COB price, the Mid-Columbia price, and the avoided cost of thermal generation as determined by GRID. The monthly COB and Mid-Columbia prices will be applied to the heavy load hours or light load hours separately. The existing balancing account mechanisms will remain in effect.
20		The partial weighting using market prices was implemented pursuant to the
21		second provision quoted above. This provision mitigates the negative value
22		proposition typically faced by direct access customers in the PacifiCorp territory.
23	Q.	Has this second provision been applied continuously since its initial adoption
24		in UE-199?

1	A.	Yes. PacifiCorp has continued to apply this provision in each TAM
2		proceeding since it was initiated in 2009 and continues to apply it in the 2019
3		TAM. ¹¹
4	Q.	Are there other elements in the TAM calculation that contribute to the
5		negative value proposition?
6	A.	Yes. In Docket UE 264, to address the problem of negative bias in the
7		calculation of the PacifiCorp TAM, I recommended recognizing a BPA Point-to-
8		Point transmission credit to remedy a structural impediment to the pricing of
9		direct access service associated with the need for an ESS to obtain wheeling from
10		BPA to reach the PacifiCorp service territory from the Mid-C trading hub.
11	Q.	Are you advocating for adoption of a BPA Point-to-Point transmission credit
12		in this proceeding?
13	А.	No. Although I continue to believe this modification is appropriate, I am
14		not advocating for this change in this proceeding because it was not adopted by
15		the Commission in UE 264.
16		
17	<u>Trea</u>	tment of Renewable Energy Certificates for Direct Access Service
18	Q.	In UE 296, UE 307, and UE 323 you recommended that the Schedule 294 and
19		295 TAM calculations be modified to capture the effects of Oregon's RPS on

¹¹ This is confirmed in PacifiCorp Response to Calpine Solutions Data Request 1.10, included in Exhibit Calpine Solutions/102, Higgins/2.

1	A.	The Oregon RPS is applicable to both cost-of-service and direct access
2		customers. When direct access customers purchase power from an ESS, the
3		energy provided by the ESS must meet RPS requirements, which as applicable to
4		PacifiCorp service territory requires that 15% of supply come from qualifying
5		renewable electricity in calendar years 2018 and 2019, 20% of supply come from
6		qualifying renewable electricity in calendar years 2020 through 2024, and 27% in
7		calendar years 2025 through 2029. ¹² At the same time, direct access customers
8		pay for the renewable energy that PacifiCorp has acquired to meet the RPS for its
9		cost-of-service customers. In the case of the five-year program, for example,
10		customers opting out later this year would pay projected costs of the existing
11		portfolio of RPS-compliant resources in Schedules 200 and 201 through the year
12		2028. In paying both the ESS and PacifiCorp for RPS power, direct access
13		customers historically paid twice to meet RPS requirements, a circumstance that I
14		argued was unreasonable and inequitable.
15	Q.	How do direct access customers pay PacifiCorp for RPS requirements?
16	A.	PacifiCorp recovers its RPS-related costs both through Schedule 200,
17		through which the fixed costs of utility-owned renewable generation are
18		recovered, and Schedule 201, through which power purchases of RPS-eligible
19		resources are recovered. ¹³ For each MWh of electric energy produced by the
20		RPS-complaint resources in Schedules 200 and 201, the resource also produces a
21		REC. As I discussed above, direct access customers are charged directly for

 ¹² ORS 469A.052(1), 469A.065.
 ¹³ This fact was established in UE 296. See PacifiCorp Response to Noble Solutions Data Request 1.11, included in Exhibit Noble Solutions/102, Higgins/7 in that docket.

1		Schedule 200 and also pay for the difference between Schedule 201 costs and the
2		value of the freed-up power, as calculated through the transition adjustment
3		calculation. In addition, direct access customers on the one-year and three-year
4		programs, as well as new customers entering the five-year program, pay for
5		Schedule 203, the Renewable Resource Deferral Supply Service Adjustment,
6		which recovers the costs of RECs that were purchased following PacifiCorp's
7		2016 RFP, which funds the acquisition of incremental RPS-eligible resources.
8	Q.	When a customer switches to direct access and acquires its RPS resources
9		from its ESS, what happens to PacifiCorp's RPS requirement?
10	A.	When a customer switches to direct access, PacifiCorp's RPS obligation is
11		reduced proportionately. Thus, just as the electric energy is freed up when the
12		customer moves to direct access, the RECs are also freed up. The freed-up RECs
13		are banked for future use by PacifiCorp's cost-of-service customers.
14	Q.	Are direct access customers currently compensated for the value of the RECs
15		procured to serve their load by PacifiCorp or otherwise allowed to recognize
16		the benefits of those RECs PacifiCorp procured on their behalf prior to the
17		direct access election?
18	A.	There is now some compensation recognized in the calculation of the
19		transition adjustment, but in my opinion, the current calculation understates the
20		REC value. In UE 323, PacifiCorp agreed to recognize a REC credit in the
21		calculation of the transition adjustment, and the Company's proposal was
22		approved by the Commission, but with instructions to investigate an alternative
23		approach for use in this case. The Commission's order in UE 323 recognized that

27		RECs as described in Mr. Wilding's testimony?
26	Q.	Do you recommend Commission approval of the approach for transferring
25		46-47 of the Direct Testimony of PacifiCorp witness Michael G. Wilding.
24		migration of direct access load. This agreed-upon approach is explained on pages
23		approach for transferring RECs from PacifiCorp to ESSs to account for the
22		including PacifiCorp, Staff, ICNU, CUB, and Calpine Solutions – agreed on an
21	A.	Yes and the workshop was successful. Participants in the workshop –
20		was referenced in the Commission's order?
19	Q.	Did PacifiCorp and other stakeholders follow through on the workshop that
18		
16 17		feasible.
15		for REC transfers, so that parties may weigh in and build a full record on this
14		for the 2019 TAM. In the 2019 TAM, the company is to present its best proposal
12		TAM. We agree with the company's workshop proposal, and add a requirement
11 12		PacifiCorp began working on two proposals for REC transfers before this TAM, and proposes to conduct another workshop on REC transfers before the 2019
10		transfers may be a simpler solution, and we are interested in this option.
9		explaining the REC markets are volatile and illiquid. Parties believe that REC
7 8		We recognize that the valuation of RECs has been a primary point of disagreement among the parties for three TAM proceedings, with parties
6		stated in Order No. 17-444
5		paying for the KECs unough the transition augustinent). As the Commission
5		paying for the RECs through the transition adjustment) As the Commission
4		be transferred to ESSs for the benefit of their direct access customers (who were
3		RECs would not be valued as part of the transition adjustment, but rather would
2		would be worthwhile to consider an entirely different approach in which the
1		parties continued to disagree over the method used to value RECs, and that it

¹⁴ UE 323, Order No. 17-444 at 19. Footnotes omitted.

1	A.	Yes, I do. The agreed-upon approach for REC transfers as described by
2		Mr. Wilding represents a constructive and equitable resolution of this
3		longstanding problem.
4		
5	Calc	ulation of the Five-Year Transition Adjustment (Schedule 296) and Consumer
6	<u>Opt-</u>	Out Charge
7	Q.	How is PacifiCorp's transition adjustment mechanism for Schedule 296
8		calculated?
9	A.	PacifiCorp's sample calculation of Schedule 296 is provided in
10		Confidential Attachment 2.14-1 in Response to Calpine Solutions Data Request
11		2.14. I have provided a non-confidential excerpt from this data response that
12		summarizes PacifiCorp's sample calculation for Schedules 30-S and 47/48-P in
13		Exhibit Calpine Solutions/103, Higgins/1-3. ¹⁵
14		Schedule 296 consists of two major parts: (1) a five-year transition
15		adjustment component that structurally is nearly identical to the calculation of the
16		Schedule 294 and 295 transition adjustments, and (2) a Consumer Opt-Out
17		component, which brings forward into Years 1 through 5 the projected Schedule
18		200 costs for Years 6 through 10, net of projected net power costs savings
19		attributed to the departed opt-out load. PacifiCorp proposes to apply the REC
20		credit it has calculated in this docket to this component.

¹⁵ PacifiCorp consented to my use of these excerpts of its discovery response as non-confidential in this testimony.

1		In addition to the Schedule 296 charge, the customer must also pay
2		PacifiCorp the base Schedule 200 charge for five years, which may be updated in
3		each rate case during that period.
4		From the effective date of the opt-out election forward, the customer also
5		pays charges for the generation and delivery that the customer will use to serve its
6		load, which includes payments to an ESS for the generation and to PacifiCorp for
7		delivery service under an applicable delivery service tariff.
8	Q.	Does Schedule 296 result in a negative value proposition for customers
9		during the five-year opt-out period?
10	А.	Yes. The negative value proposition derives from two sources. The first
11		source is a result of calculating the transition adjustment using the GRID model,
12		further exacerbated by the absence of a credit for BPA PTP transmission, as I
13		noted above in relation to Schedules 294 and 295 and previously discussed in
14		detail in UE 264 and UE 267. ¹⁶ The second source is the Consumer Opt-Out
15		charge, which brings forward projected costs from Years 6 through 10 and
16		recovers them in Years 1 through 5. It is self-evident that even if the transition
17		adjustment itself were a break even proposition (as intended per the Ongoing
18		Valuation approach) the addition of costs from future years to an otherwise break
19		even transition adjustment would create a negative value proposition in the
20		amount of the additional charge, i.e., in the amount of the Consumer Opt-Out
21		charge itself.

¹⁶ As I noted above, the last two TAMs are exceptions to this historical result.

1		So, for example, according to PacifiCorp's sample calculation, in Year 1
2		(2019) of the five-year opt-out, a Schedule 48-P customer would pay an average
3		of \$28.63/MWh for Schedule 200, while receiving a Transition Adjustment credit
4		of \$0.80/MWh, for a net charge of \$27.83/MWh, prior to considering the
5		Consumer Opt-Out charge. ¹⁷ Conceptually, under ongoing valuation, this
6		\$27.83/MWh net charge is <i>intended</i> to produce a "break-even" value proposition
7		for the direct access customer relative to cost-of-service rates, after taking into
8		account the customer's purchase of power from the competitive market. But, in
9		addition, the five-year opt-out customer would pay a Consumer Opt-Out charge of
10		\$14.65/MWh.
11		Based on these sample charges, a participating customer using 100,000
12		MWh of energy per year (roughly the size of a 15 MW customer) would pay
13		PacifiCorp \$4,248,000 per year in Year 1 for transition costs (inclusive of
14		Schedule 200 and the Consumer Opt-Out charge) ¹⁸ in addition to paying an ESS
15		for market-priced power.
16	Q.	You indicated that, structurally, the five-year transition adjustment
17		component of Schedule 296 is nearly identical to the calculation of the
18		Schedule 294 and 295 transition adjustments. In what ways does it differ
19		from the Schedule 294 and 295 calculation?

¹⁷ This information is presented in Exhibit Calpine Solutions 103, Higgins/3, which is an excerpt of PacifiCorp's confidential response to Calpine Solutions' Data Request 2.14. PacifiCorp consented to use of the excerpt in the exhibit and figures therein in this testimony as non-confidential information. ¹⁸ (27.83/MWh + 14.65/MWh) x 100,000 MWH = 4.248,000.

1	A.	Aside from the obvious fact that it is calculated for five years (instead of
2		one or three), the transition adjustment component of Schedule 296 is calculated
3		assuming 50 MW of direct access load rather than 25 MW, as is assumed for
4		Schedules 294 and 295. The five-year opt-out customers will also pay Schedule
5		200 rates for each of the first five years of the opt-out period. In this manner,
6		Schedule 296 is comparable to Schedule 294. Schedule 295 is slightly different,
7		in that three-year opt-out customers pay for projected Schedule 200 costs, rather
8		than contemporaneous Schedule 200 costs. Otherwise, the Schedule 296
9		transition adjustment component is calculated in a manner that is identical to the
10		Schedule 294 and 295 transition adjustments.
11	Q.	In UE 296, UE 307, and UE 323 you proposed modifications to the
12		calculation of the Consumer Opt-Out charge. What did you recommend in
13		those dockets?
14	A.	I recommended two refinements to the calculation. PacifiCorp's
15		calculation of the Consumer Opt-Out charge is based on projected Schedule 200
16		costs for Years 6 through 10. Under PacifiCorp's approach, these projected costs
17		are simply current Schedule 200 rates escalated at an assumed rate of inflation.
18		However, I argued that it is not reasonable for Schedule 200 costs to be escalated
19		for Years 6 through 10 as part of this calculation, because the five-year opt-out
20		customer will have already departed cost-of-service rates five years prior, and
21		incremental fixed generation costs incurred during Years 6 through 10 should not
22		be incurred on the departed customer's behalf. Rather, the opt-out charge for

1	built for the departed customer's benefit. At the maximum, this would extend to
2	the five-year planning horizon following the customer's departure (i.e., Years 1
3	through 5 of the opt-out period). This allowance for escalation of costs in the first
4	five years is very conservative because it assumes that PacifiCorp cannot unwind
5	prior commitments for five full years after the date of the opt-out election.
6	My first refinement to the Consumer Opt-Out charge is that Schedule 200
7	costs should not be escalated in Years 6 through 10; since incremental generation
8	expenditures are not incurred on departed customers' behalves, it is not
9	reasonable to assume increased Schedule 200 costs for departing customers
10	beyond the projected Year 5 Schedule 200 price.
11	The second refinement is an extension of this argument. Not only should
12	Schedule 200 costs not be escalated for the purpose of determining the Consumer
13	Opt-Out charge, these costs should in fact decline each year from Year 6 through
14	Year 10 to reflect the decline in the Company's return on generation rate base
15	attributable to the departed customers' loads, due to the effects of increased
16	accumulated depreciation and amortization. That is, as I just discussed, the
17	portfolio of generation resources acquired to meet the departed customer's load
18	should not be increased after Year 5. Once the portfolio of assets is "frozen" for
19	the purposes of this calculation, the revenue the Company earns from its return on
20	these assets properly will decline each year as a portion of those assets is
21	depreciated and amortized. This treatment is consistent with basic ratemaking
22	principles, which provide that a utility's return is earned on its net plant, reflecting
23	the removal of accumulated depreciation and amortization from rate base. The

1		effects of this decline in return should be passed through to the Consumer Opt-
2		Out charge.
3	Q.	Did you estimate how much Schedule 200 should decline from Year 6
4		through Year 10 in the calculation of the Consumer Opt-Out charge as a
5		result of your modification?
6	A.	Yes. As I testified in UE 296, UE 307, and UE 323, the Schedule 200
7		entry should decline by approximately 2.36% per year from Years 6 through 10.
8		The return component is approximately 28.2% of the Schedule 200 revenue
9		requirement and annual depreciation and amortization of production plant is
10		approximately 8.38% of production rate base. This means that, absent new
11		additions to rate base, the existing production rate base (and return on that rate
12		base) shrinks by about 8.38% per year. Since the return component is about
13		28.2% of the Schedule 200 revenue requirement, the annual reduction in return
14		revenues of 8.36% translates into a reduction in overall Schedule 200 revenue
15		requirement of 2.36% per year (i.e., 8.38% x 28.2%). As PacifiCorp has not
16		conducted an Oregon general rate case since I made these calculations, these
17		calculations remain applicable today.
18	Q.	Have you calculated the effects of your two recommended refinements to the
19		Consumer Opt-Out charge related to the inclusion of Schedule 200 costs
20		projected for years six through 10 on the sample Schedule 296 calculation
21		provided by PacifiCorp in this case?
22	А.	Yes. As shown in Exhibit Calpine Solutions/104, Higgins/2-3, these
23		refinements reduce the sample Consumer Opt-Out charge from \$18.04/MWh to

14.84/MWh for Schedule 30-S and from 14.65 /MWh to 11.64 /MWh for
Schedule 48-P.
So, for example, with this change, a participating customer on Schedule
48-P using 100,000 MWh of energy per year (roughly the size of a 15 MW
customer) would pay PacifiCorp \$3,947,000 per year in Year 1 transition costs ¹⁹
(inclusive of Schedule 200 and the Consumer Opt-Out charge) or \$301,000 less
than under the Company's proposal.
Has the Commission accepted your recommended refinements to the
calculation of the Consumer Opt-Out charge?
Initially (UE 296) the Commission rejected my recommended changes,
but in UE 323, the Commission accepted it, in part, for this 2019 TAM, stating:
We are concerned, however, with PacifiCorp's new arguments asserting that incremental generation should be allowed in the year six through ten forecast. Thus, we provide new, clear guidance to further explain our intent for the opt-out charge. This guidance is necessary because the opt-out charge is relatively new and the calculation methodology was summarily established in our review of a contested stipulation.
We direct PacifiCorp to more clearly demonstrate in the 2019 TAM that its opt- out charge meets the following criteria. First, the company may use a modest inflation adjustor to forecast year 6 through 10 costs. Second, the company should not include any new incremental generation in the years 6 through 10 forecast. Third, the company should account for depreciation. <i>With these three</i> <i>requirements, we expect the opt-out charge to fall somewhere in-between the</i> <i>company's current calculation and Calpine's suggestion, netting the company's</i> 2.5 percent inflation escalator and Calpine's 8.38 percent depreciation rate. These numbers are approximate, and PacifiCorp is directed to provide transparency into this calculation in the 2019 TAM with explanatory testimony and supporting exhibits. ²⁰

 $[\]overline{)^{19} (\$27.83/MWh + \$11.64/MWh) \times 100,000 MWh = \$3,947,000.}$ ²⁰ UE 323, Order No. 17-444 at 20-21. Emphasis added. Footnotes omitted.

1Q.Has PacifiCorp complied with this Commission directive in this 2019 TAM2filing?

3	A.	No. PacifiCorp admits that it has not modified its calculation as directed
4		by the Commission. ²¹ Instead, the Company has simply reargued its position on
5		this issue as it did in the 2018 TAM. The sample Schedule 296 calculations
6		provided by the Company for the five-year opt-out merely replicate the approach
7		PacifiCorp presented in its 2018 TAM without any attempt to reach the middle
8		ground between the Company and Calpine Solutions that was ordered by the
9		Commission for the 2019 TAM.
10	Q.	Have you presented a "middle ground" calculation of Schedule 296 in
11		response to the Commission's Order No. 17-444?
12	A.	Yes, I have. My middle ground calculation in response to the
13		Commission's order is presented in Exhibit Calpine Solutions/105.
14	Q.	Please describe the results of your "middle ground" calculation.
15	A.	As I described above, the Schedule 200 entry should decline by
16		approximately 2.36% per year from Years 6 through 10 as a result of accumulated
17		depreciation. Meanwhile, the generation cost inflation assumption used by
18		PacifiCorp escalates Schedule 200 costs at a rate of approximately 2.3% per year.
19		If we take account of both of these two effects simultaneously, as required by the
20		Commission's order, the two effects largely offset, resulting in a slight annual
21		decline in Schedule 200 costs of about \$0.04/MWh, as shown in column (d) of
22		Exhibit Calpine Solutions/105, pages 1 and 2, for the years 2024-2028.

²¹ See Direct Testimony of Michael G. Wilding, p. 53, line 10.

Q. Is your "middle ground" calculation responsive to the Commission's Order
 No. 17-444?

3	А.	Yes. My calculation is fully responsive to the Commission's Order No.
4		17-444. In that order, the Commission made it clear that year 6 through 10 costs
5		should account for depreciation, which I have demonstrated decreases fixed
6		generation revenue requirements (on a fixed pool of assets) by approximately
7		2.36% per year. PacifiCorp makes no attempt to account for the effect of
8		depreciation over this period. At the same time, the Commission is allowing for
9		the use of a modest inflation adjustor for years six through ten, which, although I
10		disagree with the premise, I have incorporated by using PacifiCorp's 2.3%
11		inflation assumption. As expected by the Commission in its order, the results of
12		my middle ground calculation fall in-between PacifiCorp's preferred calculation
13		and my preferred calculation.
14	Q.	Do you have any response to PacifiCorp's rearguing of its position from the
15		2018 TAM?
16	А.	Yes. In rearguing its position from the 2018 TAM, PacifiCorp presents
17		Exhibit PAC/110, which Mr. Wilding uses to argue that historical fixed
18		generation costs have increased between 2006 and 2016, even after removing
19		incremental costs of Major Plants Additions from the analysis. ²² However, Mr.
20		Wilding's analysis does not remove all incremental generation costs from the
21		analysis; in particular, his analysis does not remove minor plant additions nor
22		does it remove new environmental upgrade costs.

²² Id., p. 53.

1	Q.	In determining the change in fixed generation costs over time for a fixed pool
2		of assets, should incremental environmental upgrade costs be removed?
3	A.	Yes. The removal of the cost of environmental upgrades is appropriate for
4		purposes of the analysis in this case because the cost responsibility for such
5		upgrades, which essentially allow coal plants to continue operating in order to
6		provide going-forward service to bundled service customers, cannot reasonably be
7		assigned to customers who departed bundled service six to ten years previously.
8		To accept PacifiCorp's position that escalation of fixed generation costs in the
9		calculation of the Consumer Opt-Out Charge is appropriate can only mean that
10		departed customers are somehow held responsible for the cost of environmental
11		upgrades some six to ten years after leaving bundled service. I believe that such a
12		position is fundamentally unreasonable.
13	Q.	Have you prepared an analysis that removes new environmental upgrade
14		costs in the same way that Major Plant Additions are removed?
15	А.	Yes. This analysis is presented in Exhibit Calpine Solutions/106. The
16		results are summarized on pages 1-2 of that exhibit.
17	Q.	What do the results of Exhibit Calpine Solutions/106 show?
18	A.	The summary pages present PacifiCorp's Oregon-allocated fixed
19		generation costs on a per-MWh basis for each possible measurement period
20		ending in 2016, which is the final year in Mr. Wilding's Exhibit PAC/110 (e.g.,
21		2007-2016, 2008-2016, etc.). Exhibit Calpine Solutions/106 shows this
22		information for each of three scenarios: (1) Removal of Major Plant Capital
23		Additions (excluding Environmental Upgrades); (2) Removal of Major and Minor

1		Plant Capital Additions (excluding Environmental Upgrades); and (3) Removal of
2		Major and Minor Plant Capital Additions and Environmental Upgrades. ²³
3		The first row on page 1 of Exhibit Calpine Solutions/106 shows the per-
4		MWh fixed generation cost for each year calculated by PacifiCorp in Exhibit
5		PAC/110. For each measurement period, denoted by the boxes on the page, the
6		cost per MWh in the first year of the measurement period is the same as in
7		PacifiCorp's Exhibit PAC/110, and only the incremental costs subsequent to that
8		initial year are removed. So, for example, for the period 2008-2016, for Scenario
9		3, PacifiCorp's calculated cost per MWh of \$25.98/MWh is reported for 2008.
10		When the cost of Major and Minor Plant Capital Additions and Environmental
11		Upgrades) added subsequent to 2008 is removed, the remaining fixed generation
12		cost in 2016 is \$22.50/MWh.
13	Q.	What is shown on pages 3 to 20 of Exhibit Calpine Solutions/106?
14	А.	Pages 3 to 20 of the exhibit show the individual results for each standalone
15		measurement period, starting with 2007-2016 and ending with 2015-2016. The
16		results of these standalone cases are summarized on pages 1 and 2 of the exhibit,
17		as I explained above.
18	Q.	Exhibit Calpine Solutions/106 starts with the measurement period 2007-2016.
19		Why didn't you start with 2006-2016?
20	A.	As I explained in UE 323, the 2006 data are based on the March 2006
21		Results of Operations whereas the data for all other years are based on December

²³ These calculations do not include the effects of accumulated deferred income taxes, incremental operations and maintenance expense, or property taxes associated with incremental generation plant, in deference to the burdensomeness on PacifiCorp in providing this information.

1		Results of Operations. This suggests that the 2006 data are nearly two years
2		removed from the rest of the time series and therefore are not directly comparable.
3		The jump in average fixed generation costs of 43% from 2006 to 2007 as reported
4		in the Company's table is a further indication that 2006 is an anomalous entry that
5		is not useful as a point of reference in this analysis.
6	Q.	Which of the three scenarios presented in your analysis is the most
7		reasonable for the issues being considered in this case?
8	А.	The most reasonable basis of analysis for the issues being considered in
9		this case is Scenario 3 because it best reflects the change in the cost of the
10		Company's generation assets once the pool of assets is fixed in any given year,
11		comparable to what should be considered for opt-out customers six to ten years
12		after they have left cost-of-service rates.
13	Q.	What does your analysis show for Scenario 3?
14	А.	In the case of Scenario 3, the removal of incremental generation costs
15		added after the initial year of the measurement period results in a decline in 2016
16		fixed costs relative to the initial year for each of the nine measurement periods
17		between 2007-2016 and 2015-2016. This is shown on pages 1 and 2 of Exhibit
18		Calpine Solutions/106 by comparing (a) the per-MWh cost for the initial year of
19		each measurement period with (b) the 2016 per-MWh cost with all incremental
20		capital additions (including environmental upgrades) removed. My analysis
21		provides powerful evidence that these fixed costs generally will not increase, but
22		rather decline, if the new capital additions, including the cost of environmental
23		upgrades, are removed.

1 **Q.**

Please summarize your recommendations on this issue.

2	A.	I continue to believe that the most appropriate treatment for the Schedule
3		200 projections in years 6 through 10, as used in the calculation of the Consumer
4		Opt-Out Charge, should decline 2.36% per year consistent with the effects of
5		accumulated depreciation on a fixed pool of assets. At the same time I recognize
6		and appreciate that the Commission's Order 17-444 directed that a middle ground
7		approach should be adopted in this 2019 TAM. Accordingly, I have prepared
8		such a middle ground approach, which is presented in Exhibit Calpine
9		Solutions/105, which I recommend be adopted by the Commission in this case.
10		PacifiCorp's approach to estimating the Schedule 200 projections in years
11		6 through 10 ignores the Commission's directive in Order 17-444 to identify a
12		middle ground and should be rejected. Similarly, the Company's arguments that
13		its approach is justified by its historical pattern of fixed generation costs should
14		also be rejected, because the Company's analysis fails to remove all relevant
15		incremental generation costs, including environmental upgrade costs.
16	Q.	Does this conclude your opening testimony?
17	A.	Yes, it does.

Docket No. UE 339

EXHIBIT

Calpine Solutions 101

Status Report

Oregon Electric Industry Restructuring

(Number of Participating Customers as of June 2017)

Status Report

Oregon Electric Industry Restructuring (Number of Participating Customer as of June, 2017)

Portfolio Options*	PGE	PP&L
Fixed Renewable	8,762	12,024
Renewable Usage	154,838	40,914
Habitat		5,772
Habitat Rider**	9,453	
Time-of-use	5,764	1,506
Eligible Customers	853,859	582,871

* Available to residential and small nonresidential customers. Customers may, in certain circumstances, choose more than one option.

** Habitat Rider is available to existing renewable customers only, and should not be included in calculation of total renewable enrollment numbers.

Direct Access and Standard Offer Service

Certified Electricity Service Suppliers: 6 Registered Electricity Service Aggregators: 12

Nonresidential Customer Choices (based on load):

	Cost of	Market	
	Service	Options	Direct Access
PGE	81.5%	1.3%	17.2%
PP&L	95.0%	0.3%	4.7%

This report reflects prior month results.

Produced by the Oregon Public Utility Commission Energy Resources & Planning (503) 378-6917 Docket No. UE 339

EXHIBIT

Calpine Solutions 102

PacifiCorp Responses to Data Requests Referenced

in Testimony

One-Year Option - Transition Adjustments (cents/kWh)

Initial Filing UE339 - Sample Calculations

	2019					
	30/730 Sec	ondary	48/748 P	rimary		
	HLH	LLH	HLH	LLH		
Jan-18	-1.154	-0.562	-0 947	-0.794		
Feb-18	-0.761	-0.562	-1 003	-0.799		
Mar-18	-0.155	-0.254	-0 330	-0.560		
Apr-18	0 380	0.612	0.191	0.395		
May-18	0.734	1.059	0 537	0.833		
Jun-18	0.418	0.586	0 252	0.445		
Jul-18	-1.775	-0.511	511 -2 011 941 -1 578 538 -1 238 536 -0.456	-0.723 -1.149 -0.856		
Aug-18	-1 373	-0.941				
Sep-18	-0 998	-0.638				
Oct-18	-0 222	-0.326		-0.547		
Nov-18	-0 653	-0.482	-0 893	-0.696		
Dec-18	-0 677	-0.723	-0 904	-0.948		
Annual Average*			-0 698	-0.450		
Source File Names:	ORTAM19_S ORTAM19_S	chedule 30 (2 chedule 30 (2	2019) Secon 2019) Secon	dary HLH dary LLH		

ORTAM19_Schedule 48 (2019) Primary HLH ORTAM19_Schedule 48 (2019) Primary LLH CONF 15-Day Work Papers OR Docket No. UE 339 2019 TAM Confidential 15 Day Work Papers

Source Directory Source Disk *Higgins Calculation

I

Calpine Energy Solutions 1.10

Section 15 of the TAM Stipulation dated September 4, 2008 in UE-199 provides that in the calculation of the Schedule 294 transition adjustment, monthly thermal generation that is backed down for assumed direct access load will be priced at the simple monthly average of the COB price, the Mid-Columbia price, and the avoided cost of thermal generation as determined by GRID. Section 15 further provides that the monthly COB and Mid-Columbia prices will be applied to the heavy load hours or light load hours separately. Please confirm that PacifiCorp has used the calculation described above in calculating the Sample Schedule 294 Transition Adjustments for Schedules 30 and 48 filed in UE-339.

Response to Calpine Energy Solutions Data Request 1.10

PacifiCorp confirms that the calculation of the Sample Schedule 294 Transition Adjustment for Schedule 30 and Schedule 48 is consistent with the method set forth in Section 15 of the Transition Adjustment Mechanism (TAM) Stipulation in docket UE 199. For details on the calculations, please refer to the confidential work papers provided with the company's response to TAM Support Set 3; specifically those work papers beginning with "ORTAM19_Schedule."

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

Calpine Energy Solutions 1.12

Please provide the following information regarding PacifiCorp's Oregon retail load in 2017, expressed in MWh, and indicate whether PacifiCorp's sales to Georgia Pacific-Camas are included in (a) and (b):

- (a) Total Oregon retail load excluding direct access.
- (b) Total Oregon retail load that was eligible for direct access.
- (c) Direct access load differentiated into the categories of (i) annual, (ii) three-year opt out, and (iii) five-year opt-out.

Response to Calpine Energy Solutions Data Request 1.12

- (a) Total Oregon retail load excluding direct access for 2017 was 13,200,282 megawatthours (MWh). This includes sales to Georgia Pacific (GP) Camas.
- (b) Non-residential retail customers are eligible for direct access. PacifiCorp's Oregon non-residential retail load for 2017 was 7,395,936 (MWh). This includes sales to GP Camas.
- (c) Please refer to the responses to subparts (i) through (iii) below:

PacifiCorp objects to this request as not reasonably calculated to lead to the discovery of admissible evidence. Loads associated with specific customers are not relevant to this proceeding. Without waiving this objection, the company responds as follows:

- i. Rounded to the nearest 5 average megawatts (aMW), the enrolled annual load is 10 aMW.
- ii. Rounded to the nearest 5 average megawatts (aMW), the enrolled load is 10 aMW. PacifiCorp confirms that only three customers elected to participate in the three-year opt-out program.
- iii. Rounded to the nearest 5 aMW, the enrolled load is 25 aMW. PacifiCorp confirms that only one customer elected to participate in the five-year opt-out program.

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

Docket No. UE 339

EXHIBIT

Calpine Solutions 103

Non-Confidential Excerpt from PacifiCorp Response to Calpine

Solutions Data Request 2.14

Note: This exhibit contains excerpts from data responses originally designated as confidential that PacifiCorp has agreed may be presented as non-confidential.

Calpine Energy Solutions 2.14

Please provide sample calculations and supporting work papers for Schedule 296 (transition adjustments and opt-out charge) that would be applicable to Schedule 30-Secondary customers and Schedule 48-Primary customers.

Response to Calpine Energy Solutions Data Request 2.14

Please refer to Confidential Attachment Calpine Energy Solutions 2.14-1 and Confidential Attachment Calpine Energy Solutions 2.14-2, which provide the sample calculation for Schedule 296.

The confidential attachments are designated as Protected Information under Order No. 16-128 and may only be disclosed to qualified persons as defined in that order.

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

Confidential Attachment Calpine 2.14-1 Calpine Solutions/103 Higgins/ 2 of 3

Schedule 30 Schedule 339 - Five Year Cost of Service Opt-Out Program Example Calculation (\$/MWh)

Year	Schedule 201 - Net Power Costs in Rates	NPC Impact of 50 aMW Leaving System	Transi Adjustr	ition ment	Schedule Sup	200 - Base oply	Customer Opt Out Charge
	(a)	(b)	(c))	(d)	(e)
	(a)=Sch Avg	(~)	(c)=(a))-(b)	(d)=S	ch Avg	=25.63-7.59
2019	\$26.92	\$25.46	\$1.46	-	\$30.49	-	\$18.04
2020	\$25.62	\$26.96	(\$1.34)	-	\$31.28	-	\$18.04
2021	\$26.44	\$29.19	(\$2.75)	-	\$32.03	-	\$18.04
2022	\$27.10	\$30.76	(\$3.66)	-	\$32.77	-	\$18.04
2023	\$27.37	\$31.74	(\$4.37)	-	\$33.52	-	\$18.04
2024	\$28.61	\$35.13		(\$6.52)		\$34.29	
2025	\$30.24	\$39.57		(\$9.33)		\$35.08	
2026	\$30.07	\$40.98		(\$10.91)		\$35.89	
2027	\$30.63	\$43.78		(\$13.15)		\$36.72	
2028	\$33.62	\$48.03		(\$14.41)		\$37.56	
10-Year N	et Present Value (1)			(\$31.20)		\$105.35	\$74.15
5-year Nominal Levelized Payment				(\$7.59)		\$25.63	\$18.04

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate

(2) Losses at 8.01%

Confidential Attachment Calpine 2.14-1 Calpine Solutions/103 Higgins/ 3 of 3

Schedule 47/48 Schedule 339 - Five Year Cost of Service Opt-Out Program Example Calculation (\$/MWh)

Year	Schedule 201 - Net Power Costs in Rates	NPC Impact of 50 aMW Leaving System	Transition Adjustment		Schedule 200 - Base Supply		Customer Opt Out Charge
	(a)	(b)	(c	:)	(c	1)	(e)
	(a)=Sch Avg		(c)=(a)-(b)	(d)=Sc	h Avg	=24.08-9.42
2019	\$24.66	\$25.46	(\$0.80)	-	\$28.63	-	\$14.65
2020	\$23.47	\$26.96	(\$3.49)	-	\$29.38	-	\$14.65
2021	\$24.22	\$29.19	(\$4.97)	-	\$30.09	-	\$14.65
2022	\$24.83	\$30.76	(\$5.93)	-	\$30.78	-	\$14.65
2023	\$25.07	\$31.74	(\$6.67)	-	\$31.49	-	\$14.65
2024	\$26.20	\$35.13		(\$8.93)		\$32.21	
2025	\$27.70	\$39.57		(\$11.87)		\$32.95	
2026	\$27.55	\$40.98		(\$13.43)		\$33.71	
2027	\$28.06	\$43.78		(\$15.72)		\$34.49	
2028	\$30.80	\$48.03		(\$17.23)		\$35.28	
10-Year N	et Present Value (1)			(\$38.74)		\$98.95	\$60.22
5-year No	minal Levelized Paym	ient		(\$9.42)		\$24.08	\$14.65

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate

(2) Losses at 8.01%

Docket No. UE 339

EXHIBIT

Calpine Solutions 104

Schedule 296 - Five Year Cost of Service Opt-Out Program

Example Calculation as Recommended by Calpine Solutions

Calpine Solutions/104 Higgins/1

Derivation of Depreciation Impact of Return Component in Sch. 200 in PacifiCorp 2013 Rate Case, Docket UE-263

Line	(a)	(b)	(c)
No.	Description	Value	Source
1	Approved Rate of Return on Rate Base	7.621%	Docket UE-263 Order13-474, Appendix A (Stipulation, p. 4 of 39).
2	Oregon Production Rate Base Included in Sch. 200	\$ 1,662,452,363	See Docket UE-296 - Exhibit Noble Solutions/102, Higgins/11.
3	Return on Production Rate Base Included in Sch. 200	\$ 126,695,495	= Ln. 1 x Ln. 2
4	Tax Gross-Up Factor	1.6611	See Docket UE-296 - Exhibit Noble Solutions/102, Higgins/14.
5	Revenue Requirement Impact of Return on Production Rate Base	\$ 210,456,137	= Ln. 3 x Ln. 4
6	Total Unbundled Oregon Production Revenue Requirement	\$ 747,123,482	See Docket UE-296 - Exhibit Noble Solutions/102, Higgins/11-13.
7	Percentage of Return Component in Production Revenue Requirement	28.2%	$=$ Ln. 5 \div Ln. 6
8	Annual Oregon Production Depreciation/Amortization Exp.	\$ 139,238,810	See Docket UE-296 - Exhibit Noble Solutions/102, Higgins/15-16.
9	Annual Deprecation/Amortization Exp. as Pct. of Rate Base	8.38%	$=$ Ln. 8 \div Ln. 2
10	Annual Depreciation Impact on Production Return Component	2.36%	= Ln. 7 x Ln. 9

Calpine Energy Solutions Schedule 30 (Sec.) Schedule 296 - Five Year Cost of Service Opt-Out Program Example Calculation as Recommended by Calpine Solutions (\$/MWh)

Line No.	Year	Schedule 201 - Net Power Costs in Rates ¹	NPC Impact of 50 aMW Leaving System ¹	Transi Adjusti	ition ment	Schedule 2 Supp	200 - Base bly ^{2,3}	Consumer Opt Out Charge
		(a)	(b)	(c))	(0	d)	(e)
		(a) = Sch Avg		(c) = (a	.)-(b)	(d) = S	ch Avg	= 22.43-7.59
1	2019	\$26.92	\$25.46	\$1.46	-	\$30.49	-	\$14.84
2	2020	\$25.62	\$26.96	(\$1.34)	-	\$31.28	-	\$14.84
3	2021	\$26.44	\$29.19	(\$2.75)	-	\$32.03	-	\$14.84
4	2022	\$27.10	\$30.76	(\$3.66)	-	\$32.77	-	\$14.84
5	2023	\$27.37	\$31.74	(\$4.37)	-	\$33.52	-	\$14.84
6	2024	\$28.61	\$35.13		(\$6.52)		\$32.73	
7	2025	\$30.24	\$39.57		(\$9.33)		\$31.96	
8	2026	\$30.07	\$40.98	((\$10.91)		\$31.21	
9	2027	\$30.63	\$43.78	((\$13.15)		\$30.47	
10	2028	\$33.62	\$48.03	((\$14.41)		\$29.75	
11	10-Year	Net Present Value (1))	((\$31.20)		\$92.18	\$60.98
12	5-year N	ominal Levelized Pay	ment		(\$7.59)		\$22.43	\$14.84

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate.

(2) Losses at 8.01%

Data Sources:

1. For Schedule 201 (Cols. a & b), see Pacificorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

2. For Schedule 200 (Col. d), for 2019 - 2023, see PacifiCorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

3. For Schedule 200 (Col. d), for 2024 - 2028, the prior year value is reduced by Calpine Solutions' Annual Depreciation Impact percentage.

Calpine Energy Solutions Schedule 47/48 (Pri.) Schedule 296 - Five Year Cost of Service Opt-Out Program Example Calculation as Recommended by Calpine Solutions (\$/MWh)

Line No.	Year	Schedule 201 - Net Power Costs in Rates ¹	t NPC Impact of 50 aMW Leaving System ¹	Transi Adjustr	tion nent	Schedule : Supj	200 - Base ply ^{2,3}	Consumer Opt Out Charge
		(a)	(b)	(c))	(d)	(e)
		(a) = Sch Avg		(c) = (a))-(b)	(d) = S	Sch Avg	= 21.07-9.42
1	2019	\$24.66	\$25.46	(\$0.80)	-	\$28.63	-	\$11.64
2	2020	\$23.47	\$26.96	(\$3.49)	-	\$29.38	-	\$11.64
3	2021	\$24.22	\$29.19	(\$4.97)	-	\$30.09	-	\$11.64
4	2022	\$24.83	\$30.76	(\$5.93)	-	\$30.78	-	\$11.64
5	2023	\$25.07	\$31.74	(\$6.67)	-	\$31.49	-	\$11.64
6	2024	\$26.20	\$35.13		(\$8.93)		\$30.75	
7	2025	\$27.70	\$39.57	((\$11.87)		\$30.02	
8	2026	\$27.55	\$40.98	((\$13.43)		\$29.31	
9	2027	\$28.06	\$43.78	((\$15.72)		\$28.62	
10	2028	\$30.80	\$48.03	((\$17.23)		\$27.94	
11	10-Year	Net Present Value (1)	((\$38.74)		\$86.58	\$47.84
12	5-year N	ominal Levelized Pay	yment		(\$9.42)		\$21.07	\$11.64

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate.

(2) Losses at 8.01%

Data Sources:

1. For Schedule 201 (Cols. a & b), see Pacificorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

2. For Schedule 200 (Col. d), for 2019 - 2023, see PacifiCorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

3. For Schedule 200 (Col. d), for 2024 - 2028, the prior year value is reduced by Calpine Solutions' Annual Depreciation Impact percentage.

Docket No. UE 339

EXHIBIT

Calpine Solutions 105

Schedule 296 - Five Year Cost of Service Opt-Out Program

Example Calculation as Instructed in Commission Order 17-444

Calpine Energy Solutions Schedule 30 (Sec.) Schedule 296 - Five Year Cost of Service Opt-Out Program Example Calculation as Instructed in Commission Order 17-444 (\$/MWh)

Line No.	Year	Schedule 201 - Ne Power Costs in Rates ¹	t NPC Impact of 50 aMW Leaving System ¹	Transi Adjustr	ition ment	Schedule 2 Supp	200 - Base bly ^{2,3}	Consumer Opt Out Charge
		(a)	(b)	(c))	(0	d)	(e)
		(a) = Sch Avg		(c) = (a))-(b)	(d) = S	ch Avg	= 23.92-7.59
1	2019	\$26.92	\$25.46	\$1.46	-	\$30.49	-	\$16.33
2	2020	\$25.62	\$26.96	(\$1.34)	-	\$31.28	-	\$16.33
3	2021	\$26.44	\$29.19	(\$2.75)	-	\$32.03	-	\$16.33
4	2022	\$27.10	\$30.76	(\$3.66)	-	\$32.77	-	\$16.33
5	2023	\$27.37	\$31.74	(\$4.37)	-	\$33.52	-	\$16.33
6	2024	\$28.61	\$35.13		(\$6.52)		\$33.48	
7	2025	\$30.24	\$39.57		(\$9.33)		\$33.44	
8	2026	\$30.07	\$40.98	((\$10.91)		\$33.40	
9	2027	\$30.63	\$43.78	((\$13.15)		\$33.36	
10	2028	\$33.62	\$48.03	((\$14.41)		\$33.32	
11	10-Year	Net Present Value (1)	((\$31.20)		\$98.31	\$67.10
12	5-year N	ominal Levelized Pag	yment		(\$7.59)		\$23.92	\$16.33

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate.

(2) Losses at 8.01%

Data Sources:

1. For Schedule 201 (Cols. a & b), see Pacificorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

2. For Schedule 200 (Col. d), for 2019 - 2023, see PacifiCorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

3. For Schedule 200 (Col. d), for 2024 - 2028, the prior year value is reduced by Calpine Solutions' Annual Depreciation Impact percentage and escalated by PacifiCorp's annual inflation adjustment.

Calpine Energy Solutions Schedule 47/48 (Pri.) Schedule 296 - Five Year Cost of Service Opt-Out Program Example Calculation as Instructed in Commission Order 17-444 (\$/MWh)

Line No.	Year	Schedule 201 - Net Power Costs in Rates ¹	NPC Impact of 50 aMW Leaving System ¹	Transi Adjustr	tion ment	Schedule 2 Supp	200 - Base ply ^{2,3}	Consumer Opt Out Charge
		(a)	(b)	(c))	()	d)	(e)
		(a) = Sch Avg		(c) = (a))-(b)	(d) = S	Sch Avg	= 22.46-9.42
1	2019	\$24.66	\$25.46	(\$0.80)	-	\$28.63	-	\$13.04
2	2020	\$23.47	\$26.96	(\$3.49)	-	\$29.38	-	\$13.04
3	2021	\$24.22	\$29.19	(\$4.97)	-	\$30.09	-	\$13.04
4	2022	\$24.83	\$30.76	(\$5.93)	-	\$30.78	-	\$13.04
5	2023	\$25.07	\$31.74	(\$6.67)	-	\$31.49	-	\$13.04
6	2024	\$26.20	\$35.13		(\$8.93)		\$31.45	
7	2025	\$27.70	\$39.57	((\$11.87)		\$31.41	
8	2026	\$27.55	\$40.98	((\$13.43)		\$31.37	
9	2027	\$28.06	\$43.78	((\$15.72)		\$31.33	
10	2028	\$30.80	\$48.03	((\$17.23)		\$31.29	
11	10-Year	Net Present Value (1)	((\$38.74)		\$92.33	\$53.59
12	5-year N	ominal Levelized Pay	ment		(\$9.42)		\$22.46	\$13.04

Notes:

(1) 2019 through 2028 using a 6.91% Discount Rate.

(2) Losses at 8.01%

Data Sources:

1. For Schedule 201 (Cols. a & b), see Pacificorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

2. For Schedule 200 (Col. d), for 2019 - 2023, see PacifiCorp Response to Calpine Solutions DR No. 2.14 (Included in Calpine Solutions/103, Higgins/1-3).

3. For Schedule 200 (Col. d), for 2024 - 2028, the prior year value is reduced by Calpine Solutions' Annual Depreciation Impact percentage and escalated by PacifiCorp's annual inflation adjustment.

Docket No. UE 339

EXHIBIT

Calpine Solutions 106

Calpine Energy Solutions Adjustments to PacifiCorp Fixed Generation Revenue Requirement

Summary for Multiple Measurement Periods

PacifiCorp Calculated Revenue Requirement (\$/MWh)	2006 14.70	2007 21.03	2008 25.98	2009 25.28	2010 27.47	2011 28.38	2012 27.53	2013 28.93	2014 30.26	2015 29.49	2016 31.15
Measurement Period: 2007-2016											
Calpine Removal of Major Plant Capital Additions:	2010-2017										
Scenario 1 (\$/MWh)	14.70	21.03	24.51	21.96	23.21	24.01	23.55	25.24	26.20	24.85	26.52
Calpine Removal of Capital Additions <\$1,000,000:	-	1000100001		1000 M 1000	1010110101			12/10/10/10/1	101101 00011	Terrar terrar	
Scenario 2 (\$/MWh)	14.70	21.03	24.30	21.48	22.54	23.17	22.58	24.06	24.73	23.24	24.70
Calpine Removal of Steam Plant Environmental Upgrades:											
Scenario 3 (S/MWh)	14.70	21.03	24.04	21.01	21.52	21.18	19.99	21.30	21.39	19.71	20.81
Measurement Period: 2008-2016 Calpine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	23.37	24.60	25.37	24.82	26.46	27.41	26.07	27.79
Calpine Removal of Capital Additions <\$1,000,000:											
Scenario 2 (\$/MWh)	14.70	21.03	25.98	23.08	24.11	24.70	24.01	25.44	26.10	24.62	26.13
Calpine Removal of Steam Plant Environmental Upgrades:	20222	257.875	(10 yr yr 10 yr 1	1012101010	0.000		000000	00000	100,000,000	100000	10000000
Scenario 3 (\$/MWh)	14.70	21.03	25.98	22.91	23.38	23.01	21.70	22.94	23.01	21.34	22.50
Measurement Period: 2009-2016 Cabine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	25.82	26.57	25.94	27.55	28.49	27.15	28.91
Calpine Removal of Capital Additions <\$1,000,000:											175514.004.004
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	25.55	26.12	25.34	26.72	27.36	25.89	27.45
Calpine Removal of Steam Plant Environmental Upgrades:											100 Million (100 Million
Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	24.85	24.46	23.05	24.25	24.31	22.64	23.85
Measurement Period: 2010-2016 Calpine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	26.85	26.20	27.80	28.73	27.40	29.17
Calpine Removal of Capital Additions <\$1,000,000:				City you at a							(Proceeding)
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	26.50	25.69	27.06	27.70	26.23	27.80
Calpine Removal of Steam Plant Environmental Upgrades: Scenario 3 (\$\MVb)	14.70	21.03	25.08	25.28	27.47	25.66	2418	25 33	75 38	23 72	24.07
Scelario 5 (SALWA)	14.70	21.00	2000	20.20	a	20.00	24.10	20.00	20.00	20.12	24.51
<u>Measurement Period: 2011-2016</u> Calpine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	26.04	27.64	28.57	27.24	29.00
Calpine Removal of Capital Additions <\$1,000,000:											
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	25.68	27.05	27.69	26.22	27.79
Calpine Removal of Steam Plant Environmental Upgrades:											
Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	24.80	25.93	25.97	24.31	25.59

Summary for Multiple Measurement Periods

PacifiCorp Calculated Revenue Requirement (\$/MWh)	2006 14.70	2007 21.03	2008 25.98	2009 25.28	2010 27.47	2011 28.38	2012 27.53	2013 28.93	2014 30.26	<u>2015</u> 29.49	<u>2016</u> 31.15
<u>Measurement Period: 2012-2016</u> Calpine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	27.48	28.41	27.08	28.83
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	26.99	27.63	26.15	27.72
Calpine Removal of Steam Plant Environmental Upgrades: Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	26.31	26.35	24.69	25.98
Measurement Period: 2013-2016 Calpine Removal of Major Plant Capital Additions:											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	28.25	26.91	28.67
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	27.53	26.06	27.62
Calpine Removal of Steam Plant Environmental Upgrades: Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	26.18	24.53	25.81
Measurement Period: 2014-2016											
Calpine Removal of Major Plant Capital Additions: Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	27.86	29.64
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	27.05	28.65
Calpine Removal of Steam Plant Environmental Upgrades: Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	25.52	26.84
Measurement Period: 2015-2016											
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	29.46
Calpine Removal of Capital Additions <\$1,000,000: Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	28.56
Calpine Removal of Steam Plant Environmental Upgrades: Scenario 3 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	26.89

Measurement Period: 2007-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
	(4.104.515	100 072 490	122 002 071	140,000,007	144 705 (50	145.052.670	120 451 542	122 405 000	120 457 222	120.006.077	126 592 720
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,/05,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	/3,558,28/	/8,2/2,259	82,6/3,386	87,223,385	97,979,807	11/,9//,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(4/,94/,/16)	(101,224,567)	(80,0/1,0/5)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(7/0,019)	(647,970)	412,968	2,924,138
Deterred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217.192.412	326.881.959	398,664,399	372.012.372	400,371,190	408,835,716	400,259,968	421.077.583	446,165,007	433,526,775	457,953,097
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions:	2006	2007	2008	2009	<u>2010</u>	2011	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Gross Plant in Service	0	0	(106,039,224)	(302,827,044)	(410,730,585)	(444,768,564)	(436,819,564)	(424,476,930)	(511,443,712)	(598,635,683)	(619,108,502)
Accumulated Depreciation	0	0	12,827,327	32,374,488	54,079,512	79,150,203	101,926,606	122,582,732	147,960,532	175,843,154	209,274,602
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	(93,211,897)	(270,452,556)	(356,651,074)	(365,618,361)	(334,892,959)	(301,894,199)	(363,483,180)	(422,792,528)	(409,833,901)
Return On Rate Base	0	0	(7.526,126)	(22,255,541)	(29,712,601)	(29,370,123)	(25,840,341)	(23,146,273)	(27,559,506)	(31,838,793)	(31,003,453)
Operating & Maintenance Expense			(.,	() /- /	(, ,	(),,)	(- / /- /	(-, -, -,	(.,,	(-))	(-),
Depreciation Expense	0	0	(12.827.327)	(19,865,909)	(23,216,345)	(24,649,243)	(24,207,334)	(23,524,131)	(23.850.855)	(26,559,231)	(27,465,244)
Amortization Expense			()))	(. , , ,	(-) -))	() , . ,	() , ,	(-,-,-,	(- , , ,	(.,, . ,	(. , , , ,
Taxes Other Than Income											
Federal Income Taxes	0	0	(2.026.265)	(5.991.876)	(7.999.546)	(7.907.341)	(6.957.015)	(6.231.689)	(7.419.867)	(8.571.983)	(8.347.083)
State Income Taxes	0	0	(275.336)	(814,196)	(1.087.005)	(1.074.476)	(945,343)	(846.783)	(1.008.237)	(1.164.790)	(1.134.230)
Deferred Income Taxes	-	-	(,)	(01.,17.0)	(-,,,,-)	(1,01,0,10)	(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(0.00,000)	(-,,,,-)	(-,,	(1,10,1,200)
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	(22,655,053)	(48,927,523)	(62,015,497)	(63,001,183)	(57,950,032)	(53,748,876)	(59,838,464)	(68,134,798)	(67,950,010)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	(1 48)	(3 32)	(4 25)	(4 37)	(3 99)	(3 69)	(4 06)	(4 63)	(4 62)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326,881,959	376,009,345	323,084,849	338,355,693	345,834,533	342,309,936	367,328,707	386,326,542	365,391,978	390,003,087
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	24.51	21.96	23.21	24.01	23.55	25.24	26.20	24.85	26.52

Measurement Period: 2007-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000: ²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	(14,048,340)	(43,898,420)	(66,399,386)	(89,185,324)	(110,282,498)	(124,742,811)	(143,693,441)	(166,584,395)	(197,070,718)
Accumulated Depreciation	0	0	1,944,132	4,686,771	7,856,709	11,980,583	16,410,390	22,939,126	34,035,587	46,189,773	61,136,985
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	(12,104,208)	(39,211,648)	(58,542,678)	(77,204,741)	(93,872,108)	(101,803,684)	(109,657,854)	(120,394,622)	(135,933,733)
Return On Rate Base	0	0	(977,319)	(3,226,727)	(4,877,190)	(6,201,857)	(7,243,172)	(7,805,304)	(8,314,322)	(9,066,431)	(10,283,227)
Operating & Maintenance Expense											
Depreciation Expense	0	0	(1,944,132)	(2,790,949)	(3,388,727)	(4,062,646)	(4,646,400)	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income			(2/2 120)	(0.00 52.0)	(1 212 000)	(1 ((0 70 1)	(1.050.005)	(2.1.0.1.420)	(2 220 451)	(2,440,072)	(2 5 (2 5 (1)
Federal Income Taxes	0	0	(263,124)	(868,734)	(1,313,090)	(1,669,731)	(1,950,085)	(2,101,428)	(2,238,471)	(2,440,962)	(2,768,561)
State Income Taxes	0	0	(35,754)	(118,047)	(178,427)	(226,889)	(264,984)	(285,549)	(304,171)	(331,686)	(376,201)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	(3,220,330)	(7,004,457)	(9,757,435)	(12,161,123)	(14,104,640)	(17,182,772)	(21,667,685)	(23,688,845)	(26,808,023)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	(0 21)	(0 48)	(0 67)	(0 84)	(0 97)	(118)	(1 47)	(1 61)	(1 82)
Revenue Requirement excl. Major Plant & <\$1M Additions (\$)	217 192 412	326 881 959	372 789 015	316 080 392	328 598 258	333 673 410	328 205 296	350 145 935	364 658 857	341 703 132	363 195 063
MWh @ Input	14 779 272	15 543 706	15 342 576	14 715 193	14 576 188	14 403 902	14 537 470	14 555 494	14 744 774	14 702 656	14 703 821
Scenario 2 (S/MWb)	14,77,272	21.03	24 30	21 48	22 54	23 17	22 58	24.06	24 73	23 24	24 70
Scenario 2 (Griff Vil)	14.70	21.00	24.50	21.40	22.04	20.17	22.00	24.00	24.75	20.24	24.70
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	2008 (21,865,551)	<u>2009</u> (46,397,693)	<u>2010</u> (105,767,205)	<u>2011</u> (215,388,350)	<u>2012</u> (299,213,000)	<u>2013</u> (328,495,513)	<u>2014</u> (343,618,745)	<u>2015</u> (378,530,833)	<u>2016</u> (431,463,422)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	2006 0 0	<u>2007</u> 0 0	2008 (21,865,551) 1,780,098	<u>2009</u> (46,397,693) 4,086,294	2010 (105,767,205) 8,146,182	2011 (215,388,350) 15,819,694	2012 (299,213,000) 25,538,181	<u>2013</u> (328,495,513) 35,672,959	2014 (343,618,745) 57,012,174	<u>2015</u> (378,530,833) 80,094,508	2016 (431,463,422) 108,106,707
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 (21,865,551) 1,780,098 NA	2009 (46,397,693) 4,086,294 NA	2010 (105,767,205) 8,146,182 NA	2011 (215,388,350) 15,819,694 NA	2012 (299,213,000) 25,538,181 NA	2013 (328,495,513) 35,672,959 NA	<u>2014</u> (343,618,745) 57,012,174 NA	<u>2015</u> (378,530,833) 80,094,508 NA	2016 (431,463,422) 108,106,707 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 (21,865,551) 1,780,098 NA (20,085,453)	2009 (46,397,693) 4,086,294 NA (42,311,399)	2010 (105,767,205) 8,146,182 NA (97,621,023)	2011 (215,388,350) 15,819,694 NA (199,568,656)	2012 (299,213,000) 25,538,181 NA (273,674,820)	2013 (328,495,513) 35,672,959 NA (292,822,555)	2014 (343,618,745) 57,012,174 NA (286,606,571)	2015 (378,530,833) 80,094,508 NA (298,436,325)	2016 (431,463,422) 108,106,707 NA (323,356,715)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096)	2009 (46,397,693) 4,086,294 (42,311,399) (3,481,805) (2,350,429)	2010 (105,767,205) 8,146,182 (97,621,023) (8,132,807) (4,250,647)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028)	2012 (299,213,000) 25,538,181 (273,674,820) (21,116,749) (10,004,478)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365)	2014 (343,618,745) 57,012,174 (286,606,571) (21,730,676) (20,894,824)	2015 (378,530,833) 80,094,508 (298,436,325) (22,474,031) (22,572,370)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824)	2015 (378,530,833) 80,094,508 (298,436,325) (22,474,031) (22,572,370)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096) (436,623) (60,230)	2009 (46,397,693) 4,086,294 (42,311,399) (3,481,805) (2,350,429) (937,409) (102,270)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (2,189,602)	2011 (215,388,350) 15,819,694 (199,568,656) (16,031,350) (7,610,028) (4,316,133)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (777,674,920)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (201,320)	2014 (343,618,745) 57,012,174 (286,606,571) (21,730,676) (20,894,824) (5,850,567)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (6,020,100)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338)	2014 (343,618,745) 57,012,174 (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330)	2009 (46,397,693) 4,086,294 MA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378)	2010 (105,767,205) 8,146,182 (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995)	2015 (378,530,833) 80.094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Misc Revenue & Expenses Duergered Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0 0	2008 (21,865,551) 1,780,098 (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378)	2010 (105,767,205) 8,146,182 (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531)	2011 (215,388,350) 15,819,694 (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491)	2012 (299,213,000) 25,538,181 (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6.050,701) (822,190)	2016 (431,463,422) 108,106,707 (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 (21.865,551) 1,780,098 NA (20.085,453) (1,621,742) (1,780,096) (436,623) (59,330)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 (21.865,551) 1,780,098 NA (20.085,453) (1,621,742) (1,780,096) (436,623) (59,330) (3,897,791)	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378) (6,897,021)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531) (14,870,587)	2011 (215,388,350) 15,819,694 (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491) (28,544,002)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535) (37,579,041)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338) (40,169,884)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995) (49,271,062)	2015 (378,550,833) 80.094,508 NA (298,436,325) (22,474,031) (22,572,370) (6.050,701) (822,190) (51,919,291) (51,919,291)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901) (57,236,958)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 0 15,543,706	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330) (3,897,791) 15,342,576	2009 (46,397,693) 4,086,294 MA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378) (6,897,021) 14,715,193	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (4,250,647) (2,189,602) (297,531) (14,870,587) 14,576,188	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491) (28,544,002) 14,403,902	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535) (37,579,041) 14,537,470	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338) (40,169,884) 14,555,494	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995) (49,271,062) 14,744,774	2015 (378,530,833) 80.094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190) (51,919,291) 14,702,656	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901) (57,236,958) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Defereiation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00	2007 0 NA 0 0 0 0 0 0 15,543,706 000	2008 (21,865,551) 1,780,098 (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330) (3,897,791) 15,342,576 (0 25)	2009 (46,397,693) 4,086,294 MA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378) (6,897,021) 14,715,193 (0 47)	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531) (14,870,587) 14,576,188 (1 02)	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491) (28,544,002) 14,403,902 (1 98)	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535) (37,579,041) 14,537,470 (2 58)	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338) (40,169,884) 14,555,494 (2 76)	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995) (49,271,062) 14,744,774 (3 34)	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190) (51,919,291) 14,702,656 (3 53)	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901) (57,236,958) 14,703,821 (3 89)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Defered Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue & Expenses Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 NA 0 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 (21,865,551) 1,780,098 NA (20,085,453) (1,621,742) (1,780,096) (436,623) (59,330) (3,897,791) 15,342,576 (0 25) 368,891,224	2009 (46,397,693) 4,086,294 MA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378) (6,897,021) 14,715,193 (0 47) 309,183,371	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531) (14,870,587) 14,576,188 (1 02) 313,727,672	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491) (28,544,002) 14,403,902 (198) 305,129,408	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535) (37,579,041) 14,537,470 (2 58) 290,626,255	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338) (40,169,884) 14,555,494 (2 76) 309,976,051	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995) (49,271,062) 14,744,774 (3 34) 315,387,795	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190) (51,919,291) 14,702,656 (3 53) 289,783,841	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901) (57,236,958) 14,703,821 (3 89) 305,958,105
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operation Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (\$) MVM @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 (21.865,551) 1,780,098 NA (20.085,453) (1,621,742) (1,780,096) (436,623) (59,330) (3,897,791) 15,342,576 (0 25) 368,891,224 15,342,576	2009 (46,397,693) 4,086,294 NA (42,311,399) (3,481,805) (2,350,429) (937,409) (127,378) (6,897,021) 14,715,193 (0 47) 309,183,371 14,715,193	2010 (105,767,205) 8,146,182 NA (97,621,023) (8,132,807) (4,250,647) (2,189,602) (297,531) (14,870,587) 14,576,188 (1 02) 313,727,672 14,576,188	2011 (215,388,350) 15,819,694 NA (199,568,656) (16,031,350) (7,610,028) (4,316,133) (586,491) (28,544,002) 14,403,902 (1 98) 305,129,408 14,403,902	2012 (299,213,000) 25,538,181 NA (273,674,820) (21,116,749) (10,004,478) (5,685,279) (772,535) (37,579,041) 14,537,470 (258) 290,626,255 14,537,470	2013 (328,495,513) 35,672,959 NA (292,822,555) (22,450,749) (10,853,365) (6,044,432) (821,338) (40,169,884) 14,555,494 (2 76) 309,976,051 14,555,494	2014 (343,618,745) 57,012,174 NA (286,606,571) (21,730,676) (20,894,824) (5,850,567) (794,995) (49,271,062) 14,744,774 (3 34) 315,387,795 14,744,774	2015 (378,530,833) 80,094,508 NA (298,436,325) (22,474,031) (22,572,370) (6,050,701) (822,190) (51,919,291) 14,702,656 (3 53) 289,783,841 14,702,656	2016 (431,463,422) 108,106,707 NA (323,356,715) (24,461,555) (25,294,698) (6,585,803) (894,901) (57,236,958) 14,703,821 (3 89) 305,958,105 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2008-2016

PacifiCorp Calculation:	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,705,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	73,558,287	78,272,259	82,673,386	87,223,385	97,979,807	117,977,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(47,947,716)	(101,224,567)	(80,071,075)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(770,019)	(647,970)	412,968	2,924,138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217 192 412	326 881 959	398 664 399	372 012 372	400 371 190	408 835 716	400 259 968	421 077 583	446 165 007	433 526 775	457 953 097
MWh @ Input	14 779 272	15 543 706	15 342 576	14 715 193	14 576 188	14 403 902	14 537 470	14 555 494	14 744 774	14 702 656	14 703 821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
revenue requirement (\$7.17.11)	1	21100	2000	-01-0		20100	21100	20000	00120		01110
Scenario 1: Calpine Removal of Major Plant Capital Additions: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	(96,018,561)	(213,576,430)	(246,077,963)	(241,721,026)	(234,868,064)	(319,472,993)	(404,947,936)	(418,849,101)
Accumulated Depreciation	0	0	0	19,865,909	42,154,864	67,132,625	90,126,290	111,114,452	136,349,399	164,128,168	197,162,137
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	(76,152,652)	(171,421,566)	(178,945,338)	(151,594,737)	(123,753,612)	(183,123,594)	(240,819,768)	(221,686,965)
Return On Rate Base	0	0	0	(6 266 602)	(14 281 131)	(14 374 679)	(11 697 050)	(9.488.208)	(13 884 537)	(18 135 162)	(16 770 358)
Operating & Maintenance Expense	0	0	0	(0,200,002)	(1,,201,101)	(1,,,,,,,,,))	(11,0)/,000)	(),100,200)	(15,00 1,557)	(10,155,102)	(10,770,550)
Depreciation Expense	0	0	0	(19 865 909)	(23 216 345)	(24 649 243)	(24 207 334)	(23 524 131)	(23 850 855)	(26 559 231)	(27 465 244)
Amortization Expense	0	0	0	(1),005,707)	(25,210,545)	(24,049,245)	(24,207,334)	(25,524,151)	(25,050,055)	(20,555,251)	(27,405,244)
Taxas Other Then Income											
Faderal Income Taxes	0	0	0	(1.687.162)	(3 844 920)	(3.870.106)	(3 149 206)	(2 554 518)	(3 738 145)	(4 882 544)	(4 515 096)
State Income Taxes	0	0	0	(220,257)	(522,461)	(525,883)	(427 925)	(2,334,318)	(507.952)	(4,002,044)	(4,513,090)
Deferred Income Taxes	0	0	0	(229,237)	(522,401)	(525,885)	(427,923)	(347,117)	(507,952)	(005,457)	(015,527)
Mise Pavanua & Expanses											
Pavanue Credite											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	(28,048,930)	(41,864,856)	(43,419,911)	(39,481,514)	(35,913,973)	(41,981,489)	(50,240,393)	(49,364,225)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	(1 91)	(2 87)	(3 01)	(2 72)	(2 47)	(2 85)	(3 42)	(3 36)
Revenue Requirement excl Major Plant Additions (\$)	217.192.412	326,881,959	398,664,399	343,963,442	358,506,335	365,415,805	360,778,454	385,163,610	404,183,518	383,286,382	408,588,872
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14.403.902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	23.37	24.60	25.37	24.82	26.46	27.41	26.07	27.79

Measurement Period: 2008-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000: ²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	(16,499,918)	(40,279,914)	(62,862,300)	(84,435,358)	(99,622,957)	(118,260,683)	(140,924,161)	(170,539,855)
Accumulated Depreciation	0	0	0	2,790,949	6,049,388	10,159,178	14,621,913	21,200,974	32,275,783	44,414,230	59,301,199
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	(13,708,968)	(34,230,525)	(52,703,121)	(69,813,445)	(78,421,983)	(85,984,900)	(96,509,931)	(111,238,655)
Return On Rate Base	0	0	0	(1,128,111)	(2,851,745)	(4,233,642)	(5,386,805)	(6,012,625)	(6,519,425)	(7,267,772)	(8,415,074)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	(2,790,949)	(3,388,727)	(4,062,646)	(4,646,400)	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income			0	(202 522)	(2(2,220))	(1.120.027)	(1.450.000)	(1 (10 50 0	(1 555 000)	(1.05(500)	(2.2.5.5.5.5)
Federal Income Taxes	0	0	0	(303,722)	(/6/,//8)	(1,139,827)	(1,450,294)	(1,618,784)	(1,755,230)	(1,956,708)	(2,265,597)
State Income Taxes	0	0	0	(41,271)	(104,328)	(154,884)	(197,071)	(219,966)	(238,507)	(265,884)	(307,857)
Deterred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	(4,264,053)	(7,112,578)	(9,590,998)	(11.680.570)	(14.841.866)	(19.323.882)	(21.340.129)	(24,368,561)
MWh @ Input	14,779,272	15,543,706	15.342.576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14.703.821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	(0 29)	(0.49)	(0.67)	(0.80)	(1 02)	(1.31)	(1 45)	(1 66)
				(,	(,	()	()		(-)	(-)	(/
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	339,699,388	351,393,756	355,824,807	349,097,884	370,321,744	384,859,636	361,946,253	384,220,311
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	23.08	24.11	24.70	24.01	25.44	26.10	24.62	26.13
Scenario 3: Calpine Removal of Steam Plant Environmental Ungrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u>	<u>2007</u> 0	<u>2008</u>	2009 (3.753.270)	2010 (65.113.529)	2011 (174.417.855)	2012 (258,983,198)	2013 (289.397.695)	2014 (304.033.907)	2015 (338,591,939)	2016 (390,169,436)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	2009 (3,753,270) 2,350,430	2010 (65,113,529) 6 491 353	2011 (174,417,855) 14 151 968	2012 (258,983,198) 23 900 605	2013 (289,397,695) 34 081 461	2014 (304,033,907) 55,400,852	2015 (338,591,939) 78 468 774	2016 (390,169,436) 106 425 813
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 (3,753,270) 2,350,430 NA	<u>2010</u> (65,113,529) 6,491,353 NA	2011 (174,417,855) 14,151,968 NA	2012 (258,983,198) 23,900,605 NA	2013 (289,397,695) 34,081,461 NA	2014 (304,033,907) 55,400,852 NA	2015 (338,591,939) 78,468,774 NA	<u>2016</u> (390,169,436) 106,425,813 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 (3,753,270) 2,350,430 NA (1,402,841)	2010 (65,113,529) 6,491,353 NA (58,622,176)	2011 (174,417,855) 14,151,968 NA (160,265,887)	2012 (258,983,198) 23,900,605 NA (235,082,593)	2013 (289,397,695) 34,081,461 NA (255,316,234)	2014 (304,033,907) 55,400,852 NA (248,633,055)	2015 (338,591,939) 78,468,774 NA (260,123,165)	2016 (390,169,436) 106,425,813 NA (283,743,623)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 0 NA 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperceitation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370)	2016 (390,169,436) 106,425,813 (283,743,623) (21,464,872) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperceitation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405)	2015 (338,591,939) 78,468,774 (260,123,165) (19,588,822) (22,572,370) (5,273,914)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 0 0 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663)	2015 (338,591,939) 78,468,774 (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663)	2015 (338,591,939) 78,468,774 (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223) (2,501,172)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988) (24,421,295)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596) (33,690,617)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136) (36,414,863)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663) (45,511,394)	2015 (338,591,939) 78,468,774 (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637) (48,151,743)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271) (53,323,844)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input	2006 0 NA 0 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0 0 0 15,342,576	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223) (2,501,172) 14,715,193	2010 (65,113,529) (6,91,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669) (10,628,003) 14,576,188	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988) (24,421,295) 14,403,902	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596) (33,690,617) 14,537,470	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136) (36,414,863) 14,555,494	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663) (45,511,394) 14,744,774	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637) (48,151,743) 14,702,656	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271) (53,323,844) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00	2007 0 NA 0 0 0 0 0 0 15,543,706 000	2008 0 NA 0 0 0 0 0 0 15,342,576 0 00	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223) (2,501,172) 14,715,193 (0 17)	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669) (10,628,003) 14,576,188 (0 73)	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988) (24,421,295) 14,403,902 (170)	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596) (33,690,617) 14,537,470 (2 32)	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136) (36,414,863) 14,555,494 (2 50)	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663) (45,511,394) 14,744,774 (3 09)	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637) (48,151,743) 14,702,656 (3 28)	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271) (53,323,844) 14,703,821 (3 63)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 0 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 0 0 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 0 NA 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223) (4,223) (2,501,172) 14,715,193 (0 17) 337,198,216	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669) (10,628,003) 14,576,188 (0 73) 340,765,754	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988) (24,421,295) 14,403,902 (170) 331,403,512	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596) (33,690,617) 14,537,470 (2 32) 315,407,267	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136) (36,414,863) 14,555,494 (2 50) 333,906,881	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663) (45,511,394) 14,744,774 (3 09) 339,348,242	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (5,273,914) (716,637) (48,151,743) 14,702,656 (3 28) 313,794,510	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271) (53,323,844) 14,703,821 (3 63) 330,896,467
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintennee Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MVM @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 NA 0 0 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 0 NA 0 0 0 0 0 15,342,576 0 000 398,664,399 15,342,576	2009 (3,753,270) 2,350,430 NA (1,402,841) (115,440) (2,350,429) (31,080) (4,223) (2,501,172) 14,715,193 (0,17) 337,198,216 14,715,193	2010 (65,113,529) 6,491,353 NA (58,622,176) (4,883,814) (4,250,647) (1,314,873) (178,669) (10,628,003) 14,576,188 (0 73) 340,765,754 14,576,188	2011 (174,417,855) 14,151,968 NA (160,265,887) (12,874,159) (7,610,028) (3,466,120) (470,988) (24,421,295) 14,403,902 (1 70) 331,403,512 14,403,902	2012 (258,983,198) 23,900,605 NA (235,082,593) (18,138,973) (10,004,478) (4,883,570) (663,596) (33,690,617) 14,537,470 (2 32) 315,407,267 14,537,470	2013 (289,397,695) 34,081,461 NA (255,316,234) (19,575,134) (10,853,365) (5,270,228) (716,136) (36,414,863) 14,555,494 (2 50) 333,906,881 14,555,494	2014 (304,033,907) 55,400,852 NA (248,633,055) (18,851,502) (20,894,824) (5,075,405) (689,663) (45,511,394) 14,744,774 (3 09) 339,348,242 14,744,774	2015 (338,591,939) 78,468,774 NA (260,123,165) (19,588,822) (22,572,370) (22,572,370) (5,273,914) (716,637) (48,151,743) 14,702,656 (3 28) 313,794,510 14,702,656	2016 (390,169,436) 106,425,813 NA (283,743,623) (21,464,872) (25,294,698) (5,779,004) (785,271) (53,323,844) 14,703,821 (3 63) 330,896,467 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2009-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
D. 0. D. D.		100.053.400	122 002 071	1 40 000 607			100 151 510	100 405 000	100 155 000	120.0000055	126 502 520
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,705,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	/3,558,28/	/8,2/2,259	82,673,386	87,223,385	97,979,807	117,977,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(4/,94/,/16)	(101,224,567)	(80,0/1,0/5)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(770,019)	(647,970)	412,968	2,924,138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217.192.412	326.881.959	398.664.399	372.012.372	400.371.190	408.835.716	400.259.968	421.077.583	446.165.007	433,526,775	457.953.097
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14.555.494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions:	2006	2007	2008	2009	2010	2011	2012	2013	<u>2014</u>	2015	2016
Gross Plant in Service	0	0	0	0	(30,504,073)	(61,578,901)	(60,557,463)	(58,802,071)	(141,213,843)	(225,094,398)	(232,893,291)
Accumulated Depreciation	0	0	0	0	23,216,345	48,046,515	71,385,232	92,900,729	117,908,797	145,522,630	177,925,329
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	(7,287,729)	(13,532,386)	10,827,768	34,098,658	(23,305,046)	(79,571,768)	(54,967,962)
Return On Rate Base	0	0	0	0	(607,141)	(1,087,057)	835,471	2,614,349	(1,767,002)	(5,992,228)	(4,158,262)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	(23,216,345)	(24,649,243)	(24,207,334)	(23,524,131)	(23,850,855)	(26,559,231)	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	(163,461)	(292,669)	224,934	703,863	(475,731)	(1,613,292)	(1,119,532)
State Income Taxes	0	0	0	0	(22,212)	(39,769)	30,565	95,643	(64,644)	(219,220)	(152,126)
Deferred Income Taxes									. , ,		. , ,
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	(24,009,158)	(26,068,737)	(23,116,364)	(20,110,275)	(26,158,233)	(34,383,971)	(32,895,164)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	(1 65)	(1 81)	(1 59)	(1 38)	(177)	(2 34)	(2 24)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	376,362,033	382,766,978	377,143,604	400,967,307	420,006,774	399,142,805	425,057,933
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	25.82	26.57	25.94	27.55	28.49	27.15	28.91

Measurement Period: 2009-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000:2	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	(8,820,592)	(31,157,811)	(53,304,045)	(69,367,615)	(87,628,467)	(110,017,964)	(138,585,037)
Accumulated Depreciation	0	0	0	0	3,388,727	7,477,782	11,988,994	18,642,139	29,685,074	41,800,349	56,598,632
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	(5,431,864)	(23,680,029)	(41,315,052)	(50,725,476)	(57,943,392)	(68,217,614)	(81,986,406)
Return On Rate Base	0	0	0	0	(452,529)	(1,902,217)	(3,187,869)	(3,889,130)	(4,393,302)	(5,137,192)	(6,202,175)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	(3,388,727)	(4,062,646)	(4,646,400)	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	(121,835)	(512,135)	(858,273)	(1,047,073)	(1,182,812)	(1,383,090)	(1,669,816)
State Income Taxes	0	0	0	0	(16,555)	(69,591)	(116,625)	(142,280)	(160,725)	(187,939)	(226,900)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	(3,979,646)	(6,546,589)	(8,809,166)	(12,068,974)	(16,547,559)	(18,557,987)	(21,478,926)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	(0 27)	(0 45)	(0 61)	(0 83)	(1 12)	(1 26)	(1 46)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	372,382,387	376,220,389	368,334,437	388,898,333	403,459,215	380,584,818	403,579,008
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	25.55	26.12	25.34	26.72	27.36	25.89	27.45
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u> 0	<u>2009</u> 0	2010 (57,957,412)	2011 (167,205,969)	2012 (251,901,693)	2013 (282,515,449)	<u>2014</u> (297,065,933)	<u>2015</u> (331,561,642)	2016 (382,900,608)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	2006 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	2010 (57,957,412) 4,250,647	2011 (167,205,969) 11,893,800	2012 (251,901,693) 21,683,262	2013 (282,515,449) 31,926,509	<u>2014</u> (297,065,933) 53,219,057	2015 (331,561,642) 76,267,464	2016 (382,900,608) 104,149,815
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 (57,957,412) 4,250,647 NA	2011 (167,205,969) 11,893,800 NA	2012 (251,901,693) 21,683,262 NA	2013 (282,515,449) 31,926,509 NA	2014 (297,065,933) 53,219,057 NA	<u>2015</u> (331,561,642) 76,267,464 NA	<u>2016</u> (382,900,608) 104,149,815 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 (57,957,412) 4,250,647 NA (53,706,765)	2011 (167,205,969) 11,893,800 NA (155,312,169)	2012 (251,901,693) 21,683,262 NA (230,218,432)	2013 (282,515,449) 31,926,509 NA (250,588,940)	2014 (297,065,933) 53,219,057 NA (243,846,876)	2015 (331,561,642) 76,267,464 NA (255,294,178)	2016 (382,900,608) 104,149,815 NA (278,750,793)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 0 NA 0 0	2009 0 0 NA 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 (57,957,412) 4,250,647 (53,706,765) (4,474,311) (4,250,647)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824)	2015 (331,561,642) 76,267,464 (255,294,178) (19,225,171) (22,572,370)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008)	2016 (382,900,608) 104,149,815 (278,750,793) (21,087,170) (25,294,698) (5,677,315)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Deperciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0 0	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688) (10,093,268)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430) (23,901,669)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865) (33,200,520)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877) (35,941,581)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387) (45,037,526)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333) (47,676,882)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453) (52,830,635)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 0 0 0 0 0 15,543,706	2008 0 NA 0 0 0 0 0 0 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193	2010 (57,957,412) 4,250,647 (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688) (10,093,268) 14,576,188	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430) (23,901,669) 14,403,902	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865) (33,200,520) 14,537,470	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877) (35,941,581) 14,555,494	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387) (45,037,526) 14,744,774	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333) (47,676,882) 14,702,656	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453) (52,830,635) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 000	2007 0 NA 0 0 0 0 0 15,543,706 0 00	2008 0 NA 0 0 0 0 0 15,342,576 0 00	2009 0 NA 0 0 0 0 0 0 14,715,193 000	2010 (57,957,412) 4,250,647 (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688) (10,093,268) 14,576,188 (0 69)	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430) (23,901,669) 14,403,902 (1 66)	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865) (33,200,520) 14,537,470 (2 28)	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877) (35,941,581) 14,555,494 (2 47)	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387) (45,037,526) 14,744,774 (3 05)	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333) (47,676,882) 14,702,656 (3 24)	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453) (52,830,635) 14,703,821 (3 59)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Nisc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 NA 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 0 0 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 0 0 NA 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 (57,957,412) 4,250,647 (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688) (10,093,268) 14,576,188 (0 69) 362,289,119	2011 (167,205,969) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430) (23,901,669) 14,403,902 (1 66) 352,318,720	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865) (33,200,520) 14,537,470 (2 28) 335,133,917	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877) (35,941,581) 14,555,494 (247) 352,956,753	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387) (45,037,526) 14,744,774 (3 05) 358,421,689	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333) (47,676,882) 14,702,656 (3 24) 332,907,936	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453) (52,830,635) 14,703,821 (3 59) 350,748,372
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 14,779,272 0,00 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 0 NA 0 0 0 0 15,342,576 0 00 398,664,399 15,342,576	2009 0 NA 0 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 (57,957,412) 4,250,647 NA (53,706,765) (4,474,311) (4,250,647) (1,204,622) (163,688) 14,576,188 (0 69) 362,289,119 14,576,188	2011 (167,205,569) 11,893,800 NA (155,312,169) (12,476,227) (7,610,028) (3,358,984) (456,430) (23,901,669) 14,403,902 (1 66) 352,318,720 14,403,902	2012 (251,901,693) 21,683,262 NA (230,218,432) (17,763,654) (10,004,478) (4,782,522) (649,865) (33,200,520) 14,537,470 (2 28) 335,133,917 14,537,470	2013 (282,515,449) 31,926,509 NA (250,588,940) (19,212,691) (10,853,365) (5,172,648) (702,877) (35,941,581) 14,555,494 (2 47) 352,956,753 14,555,494	2014 (297,065,933) 53,219,057 NA (243,846,876) (18,488,612) (20,894,824) (4,977,703) (676,387) (45,037,526) 14,744,774 (3 05) 358,421,689 14,744,774	2015 (331,561,642) 76,267,464 NA (255,294,178) (19,225,171) (22,572,370) (5,176,008) (703,333) (47,676,882) 14,702,656 (3 24) 332,907,936 14,702,656	2016 (382,900,608) 104,149,815 NA (278,750,793) (21,087,170) (25,294,698) (5,677,315) (771,453) (52,830,635) 14,703,821 (3 59) 350,748,372 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2010-2016

PacifiCorp Calculation: ¹ <u>2006</u> <u>2007</u> <u>2008</u> <u>2009</u> <u>2010</u> <u>2011</u> <u>2012</u> <u>2013</u> <u>2014</u> <u>2</u>	15 2016
Total Rate Base 719,894,639 1,336,508,766 1,648,371,025 1,713,216,752 1,736,954,242 1,815,681,297 1,794,346,075 1,741,041,460 1,826,116,636 1,739	28,889 1,805,483,948
Return Un Rate Base 64,124,515 109,072,480 133,092,971 140,980,607 144,705,658 143,853,679 138,451,743 133,452,708 138,457,723 130	96,877 136,582,739
Operating & Maintenance Expense 92,140,549 112,008,196 123,422,619 121,104,940 152,130,476 150,819,888 138,323,152 141,947,327 135,214,927 131	05,825 130,145,756
Depreciation Expense 38,586,197 63,647,725 73,558,287 78,272,259 82,673,386 87,223,385 97,979,807 117,977,610 124,957,867 126	19,661 134,023,569
Amortization Expense 5,662,778 9,141,066 9,063,926 8,407,431 9,090,180 8,660,604 7,679,640 8,268,200 8,969,338 8	21,880 8,692,851
Taxes Other Than Income 9,609,011 11,989,900 14,060,167 15,439,056 17,203,839 19,052,597 19,151,857 19,728,897 20,128,595 20	96,832 21,800,785
Federal Income Taxes $10,360,962$ $22,917,351$ $(8,228,622)$ $(47,947,716)$ $(101,224,567)$ $(80,071,075)$ $(52,659,018)$ $(22,320,370)$ $(34,470,831)$ $(13.59,152)$	55,054) 6,315,414
State Income Taxes 1,354,613 4,376,898 429,505 (4,447,668) (11,062,618) (8,721,273) (4,834,371) (770,019) (647,970)	12,968 2,924,138
Deterred income Taxes (764,258) 10,795,533 68,400,565 87,034,858 125,582,322 104,256,684 72,928,113 37,266,342 65,285,463 37.	75,968 25,003,898
Misc Revenue & Expenses (394,395) (2,708,250) (3,682,256) (2,066,374) (1,323,121) (705,446) (370,209) (125,422) (80,155) (125,422) (80,155) (125,422) (125,4	33,471) (87,310)
Revenue Credits (3,487,558) (14,358,942) (13,512,764) (24,765,022) (17,404,366) (17,533,328) (16,390,747) (14,380,891) (11,649,449) (9,	14,713) (7,448,743)
Revenue Requirement (\$) 217.192.412 326.881.959 398.664.399 372.012.372 400.371.190 408.835.716 400.259.968 421.077.583 446.165.007 433	26.775 457.953.097
MWh @ Input 14,779.272 15,543,706 15,342,576 14,715,193 14,576,188 14,403,902 14,537,470 14,555,494 14,744,774 14	02.656 14.703.821
Revenue Requirement (S/MWh) 14.70 21.03 25.98 25.28 27.47 28.38 27.53 28.93 30.26	29.49 31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions: ¹ 2006 2007 2008 2009 2010 2011 2012 2013 2014 2	<u>15 2016</u>
Gross Plant in Service 0 0 0 0 0 0 (95,311) (185,415) (128,768) (81,809,679) (165.	58,911) (170,924,245)
Accumulated Depreciation 0 0 0 0 0 0 24,649,243 48,410,951 70,572,897 95,302,840 122	14,481 154,343,319
Accumulated Deferred Income Taxes <u>NA NA N</u>	NA NA
Total Rate Base 0 0 0 0 24,553,932 48,225,536 70,444,129 13,493,161 (42,	44,430) (16,580,927)
Return On Rate Base 0 0 0 0 0 0 0 0 0 1.972.417 3.721.082 5.400.962 1.023.059 (3	96,318) (1,254,328)
Operating & Maintenance Expense	
Depreciation Expense 0 0 0 0 0 (24,649,243) (24,207,334) (23,524,131) (23,850,855) (26	59,231) (27,465,244)
Amortization Expense	
Taxes Other Than Income	
Federal Income Taxes 0 0 0 0 0 0 531.035 1.001.830 1.454.105 275.439	60,547) (337,704)
State Income Taxes 0 0 0 0 0 0 72,159 136,132 197,589 37,428	16.934) (45.888)
Deferred Income Taxes	(10,000)
Misc Revenue & Expenses	
Revenue Credits	
Revenue Requirement (\$) 0 0 0 0 0 0 (22,073,631) (19,348,290) (16,471,475) (22,514,929) (30	33,031) (29,103,163)
MWh@Input 14,779,272 15,543,706 15,342,576 14,715,193 14,576,188 14,403,902 14,537,470 14,555,494 14,744,774 14	02,656 14,703,821
Revenue Requirement (\$/MWh) 0 00 0 00 0 00 0 00 0 00 (1 33) (1 13) (1 53)	(2 09) (1 98)
Revenue Requirement excl. Major Plant Additions (\$) 217 192 412 326 881 959 398 664 399 372 012 372 400 371 190 386 762 084 380 911 678 404 606 108 423 650 077 402	93 744 428 849 934
14779 772 15 543 706 15 342 776 14 715 193 14 575 188 11 4 403 902 14 575 494 14 744 774 14	02 656 14 703 821
Scenario 1 (S/MWh) 14.70 21.03 25.98 27.47 26.85 26.20 27.80 28.73	27.40 29.17

Measurement Period: 2010-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000:2	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	(13,379,148)	(35,846,797)	(52,401,577)	(70,451,093)	(92,686,951)	(120,665,999)
Accumulated Depreciation	0	0	0	0	0	4,062,646	8,635,599	15,383,102	26,385,441	38,471,203	53,156,531
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	(9,316,502)	(27,211,198)	(37,018,475)	(44,065,652)	(54,215,748)	(67,509,468)
Return On Rate Base	0	0	0	0	0	(748,395)	(2,099,616)	(2,838,212)	(3,341,083)	(4,082,768)	(5,107,012)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	(4,062,646)	(4,646,400)	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	(201,491)	(565,281)	(764,134)	(899,522)	(1,099,207)	(1,374,965)
State Income Taxes	0	0	0	0	0	(27,379)	(76,812)	(103,833)	(122,230)	(149,364)	(186,835)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	(5,039,911)	(7,388,109)	(10,696,670)	(15,173,556)	(17,181,105)	(20,048,845)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	(0 35)	(0 51)	(0 73)	(1 03)	(1 17)	(1 36)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	381,722,173	373,523,569	393,909,437	408,476,521	385,612,640	408,801,088
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	26.50	25.69	27.06	27.70	26.23	27.80
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u>	<u>2009</u> 0	<u>2010</u> 0	2011 (50,387,807)	2012 (137,195,449)	2013 (171,036,803)	2014 (184,198,658)	2015 (217.684.858)	2016 (265,160,085)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	2011 (50,387,807) 7.610.027	2012 (137,195,449) 17,476,934	2013 (171,036,803) 27,838,539	2014 (184,198,658) 49,080,165	2015 (217,684,858) 72,091,553	2016 (265,160,085) 99.832.219
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 0 0 NA	<u>2011</u> (50,387,807) 7,610,027 NA	<u>2012</u> (137,195,449) 17,476,934 NA	2013 (171,036,803) 27,838,539 NA	<u>2014</u> (184,198,658) 49,080,165 NA	<u>2015</u> (217,684,858) 72,091,553 NA	2016 (265,160,085) 99,832,219 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 0 0 NA 0	2011 (50,387,807) 7,610,027 NA (42,777,780)	2012 (137,195,449) 17,476,934 NA (119,718,515)	2013 (171,036,803) 27,838,539 NA (143,198,264)	2014 (184,198,658) 49,080,165 NA (135,118,493)	2015 (217,684,858) 72,091,553 NA (145,593,305)	2016 (265,160,085) 99,832,219 NA (165,327,866)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028)	2012 (137,195,449) 17,476,934 (119,718,515) (9,237,481) (10,004,478)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824)	2015 (217,684,858) 72,091,553 (145,593,305) (10,964,042) (22,572,370)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858) (401,108)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858) (401,108)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0	2007 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944)	2013 (171.036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858) (401,108)	2016 (265,160,085) 99,832,219 (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 (50,387,807) 7,610,027 (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858) (401,108)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2011 (50,387,807) 7,610,027 (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715) (12,097,251)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944) (22,066,917)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657) (25,189,947)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794) (34,272,586)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (2,951,858) (401,108) (36,889,378)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551) (41,626,338)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (\$) MVh @ Input	2006 0 NA 0 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 0 0 0 0 15,543,706	2008 0 NA 0 0 0 0 0 0 15,342,576	2009 0 NA 0 0 0 0 0 0 0 14,715,193	2010 0 0 NA 0 0 0 0 14,576,188	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715) (12,097,251) 14,403,902	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944) (22,066,917) 14,537,470	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657) (25,189,947) 14,555,494	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794) (34,272,586) 14,744,774	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (22,572,370) (22,951,858) (401,108) (36,889,378) 14,702,656	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551) (41,626,338) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00	2007 0 NA 0 0 0 0 0 0 0 15,543,706 0 00	2008 0 NA 0 0 0 0 0 0 15,342,576 000	2009 0 NA 0 0 0 0 0 0 14,715,193 000	2010 0 NA 0 0 0 0 0 0 14,576,188 000	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715) (12,097,251) 14,403,902 (0 84)	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944) (22,066,917) 14,537,470 (1 52)	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657) (25,189,947) 14,555,494 (1 73)	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794) (34,272,586) 14,744,774 (2 32)	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (22,572,370) (22,951,858) (401,108) (36,889,378) 14,702,656 (2 51)	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551) (41,626,338) 14,703,821 (2 83)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 0 0 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 0 0 0 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 0 NA 0 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190	2011 (50,387,807) 7,610,027 (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715) (12,097,251) 14,403,902 (0 84) 369,624,923	2012 (137,195,449) 17,476,934 (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944) (22,066,917) 14,537,470 (1 52) 351,456,652	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,853,365) (2,955,893) (401,657) (25,189,947) 14,555,494 (1 73) 368,719,490	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794) (34,272,586) 14,744,774 (2 32) 374,203,935	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (22,572,370) (22,572,370) (2,951,858) (401,108) (36,889,378) 14,702,656 (2 51) 348,723,262	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551) (41,626,338) 14,703,821 (2 83) 367,174,750
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MVM @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 0 00 217,192,412 14,779,272	2007 0 NA 0 0 0 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 0 NA 0 0 0 0 0 0 15,342,576 0 000 398,664,399 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 0 0 NA 0 0 0 0 0 14,576,188 000 4400,371,190 14,576,188	2011 (50,387,807) 7,610,027 NA (42,777,780) (3,436,339) (7,610,028) (925,168) (125,715) (12,097,251) 14,403,902 (0 84) 369,624,923 14,403,902	2012 (137,195,449) 17,476,934 NA (119,718,515) (9,237,481) (10,004,478) (2,487,014) (337,944) (22,066,917) 14,537,470 (152) 351,456,652 14,537,470	2013 (171,036,803) 27,838,539 NA (143,198,264) (10,979,032) (10,853,365) (2,955,893) (401,657) (25,189,947) 14,555,494 (173) 368,719,490	2014 (184,198,658) 49,080,165 NA (135,118,493) (10,244,763) (20,894,824) (2,758,205) (374,794) (34,272,586) 14,744,774 (2 32) 374,203,935 14,744,774	2015 (217,684,858) 72,091,553 NA (145,593,305) (10,964,042) (22,572,370) (22,572,370) (22,551,858) (401,108) (36,889,378) 14,702,656 (251) 348,723,262 14,702,656	2016 (265,160,085) 99,832,219 NA (165,327,866) (12,506,859) (25,294,698) (3,367,231) (457,551) (41,626,338) 14,703,821 (2 83) 367,174,750 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2011-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,705,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	73,558,287	78,272,259	82,673,386	87,223,385	97,979,807	117,977,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(47,947,716)	(101,224,567)	(80,071,075)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(770,019)	(647,970)	412,968	2,924,138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	421,077,583	446,165,007	433,526,775	457,953,097
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	1,761	53,141	(81,625,504)	(164,973,088)	(170,732,118)
Accumulated Depreciation	0	0	0	0	0	0	24,207,334	47,050,320	71,487,256	98,685,884	129,499,453
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	24,209,095	47,103,461	(10,138,249)	(66,287,204)	(41,232,665)
Return On Rate Base	0	0	0	0	0	0	1,867,974	3,611,429	(768,688)	(4,991,821)	(3,119,203)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	(24,207,334)	(23,524,131)	(23,850,855)	(26,559,231)	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	502,916	972,308	(206,954)	(1,343,952)	(839,785)
State Income Taxes	0	0	0	0	0	0	68,338	132,120	(28,122)	(182,621)	(114,113)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	(21,768,106)	(18,808,273)	(24,854,619)	(33,077,625)	(31,538,345)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	(1 50)	(1 29)	(1 69)	(2 25)	(2 14)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	378,491,862	402,269,310	421,310,387	400,449,150	426,414,752
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	26.04	27.64	28.57	27.24	29.00

Measurement Period: 2011-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000: ²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	(9,572,255)	(26,866,347)	(44,597,785)	(66,602,406)	(93,696,428)
Accumulated Depreciation	0	0	0	0	0	0	4,646,400	11,506,150	22,460,197	34,510,851	49,061,807
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	(4,925,856)	(15,360,197)	(22,137,588)	(32,091,555)	(44,634,621)
Return On Rate Base	0	0	0	0	0	0	(380,079)	(1,177,669)	(1,678,485)	(2,416,685)	(3,376,557)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	(4,646,400)	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income	_				_						
Federal Income Taxes	0	0	0	0	0	0	(102,329)	(317,065)	(451,900)	(650,646)	(909,073)
State Income Taxes	0	0	0	0	0	0	(13,905)	(43,084)	(61,406)	(88,412)	(123,528)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	(5,142,712)	(8,528,308)	(13,002,511)	(15,005,508)	(17,789,191)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	(0 35)	(0 59)	(0 88)	(1 02)	(1 21)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217.192.412	326.881.959	398.664.399	372.012.372	400.371.190	408.835.716	373,349,149	393.741.002	408.307.877	385.443.642	408.625.561
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14.576.188	14.403.902	14.537.470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	25.68	27.05	27.69	26.22	27.79
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	<u>2014</u>	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u> 0	<u>2009</u> 0	<u>2010</u> 0	<u>2011</u> 0	<u>2012</u> (38,241,725)	<u>2013</u> (74,867,433)	<u>2014</u> (86,831,360)	<u>2015</u> (119,446,686)	<u>2016</u> (163,588,778)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	<u>2011</u> 0 0	2012 (38,241,725) 10,004,486	2013 (74,867,433) 20,576,350	2014 (86,831,360) 41,727,515	2015 (119,446,686) 64,673,140	2016 (163,588,778) 92,162,105
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 0 0 NA	2011 0 0 NA	<u>2012</u> (38,241,725) 10,004,486 NA	2013 (74,867,433) 20,576,350 NA	2014 (86,831,360) 41,727,515 NA	2015 (119,446,686) 64,673,140 NA	2016 (163,588,778) 92,162,105 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 0 NA 0	2011 0 0 NA 0	2012 (38,241,725) 10,004,486 NA (28,237,239)	2013 (74,867,433) 20,576,350 NA (54,291,083)	2014 (86,831,360) 41,727,515 NA (45,103,844)	2015 (119,446,686) 64,673,140 NA (54,773,546)	2016 (163,588,778) 92,162,105 NA (71,426,673)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 0 NA 0 0	2009 0 0 NA 0 0	2010 0 0 NA 0	2011 0 0 NA 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 0 NA 0 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478) (586,596)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0	2011 0 NA 0 0 0 0 0	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 NA 0 0 0 0 0 0 0	2012 (38,241,725) 10,004,486 (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0	2012 (38,241,725) 10.004,486 NA (28,237,239) (2,178,785) (10.004,478) (586,596) (79,709)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Deperciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 NA 0 0 0 0 0 0	2012 (38,241,725) 10.004,486 (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue Mexpenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2012 (38,241,725) 10,004,486 (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709) (12,849,568)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281) (16,288,826)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110) (25,360,449)	2015 (119,446,686) 64,673,140 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901) (27,958,560)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676) (32,350,464)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 0 0 0 0 15,543,706	2008 0 NA 0 0 0 0 0 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193	2010 0 0 NA 0 0 0 0 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902	2012 (38,241,725) 10,004,486 (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709) (12,849,568) 14,537,470	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281) (16,288,826) 14,555,494	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110) (25,360,449) 14,744,774	2015 (119,446,686) 64,673,140 (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901) (27,958,560) 14,702,656	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676) (32,350,464) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00	2007 0 NA 0 0 0 0 0 0 15,543,706 000	2008 0 NA 0 0 0 0 0 0 15,342,576 000	2009 0 NA 0 0 0 0 0 0 14,715,193 000	2010 0 0 NA 0 0 0 0 14,576,188 000	2011 0 0 NA 0 0 0 0 0 14,403,902 0 00	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709) (12,849,568) 14,537,470 (0 88)	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281) (16,288,826) 14,555,494 (1 12)	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110) (25,360,449) 14,744,774 (1 72)	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901) (27,958,560) 14,702,656 (1 90)	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676) (32,350,464) 14,703,821 (2 20)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 NA 0 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 0 NA 0 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 0 NA 0 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190	2011 0 0 NA 0 0 0 0 0 14,403,902 000 408,835,716	2012 (38,241,725) 10,004,486 NA (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709) (12,849,568) 14,537,470 (0.88) 360,499,581	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281) (16,288,826) 14,555,494 (1 12) 377,452,176	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110) (25,360,449) 14,744,774 (172) 382,947,428	2015 (119,446,686) 64,673,140 (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901) (27,958,560) 14,702,656 (190) 357,485,082	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676) (32,350,464) 14,703,821 (2 20) 376,275,097
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 0 0 NA 0 0 0 0 0 15,342,576 0 00 398,664,399 15,342,576	2009 0 0 NA 0 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 0 0 NA 0 0 0 0 0 14,576,188 0 00 400,371,190 14,576,188	2011 0 0 NA 0 0 0 0 0 14,403,902 0 00 408,835,716 14,403,902	2012 (38,241,725) 10.004,486 NA (28,237,239) (2,178,785) (10,004,478) (586,596) (79,709) (12,849,568) 14,537,470 (0 88) 360,499,581 14,537,470	2013 (74,867,433) 20,576,350 NA (54,291,083) (4,162,505) (10,853,365) (1,120,675) (152,281) (16,288,826) 14,555,494 (1 12) 377,452,176 14,555,494	2014 (86,831,360) 41,727,515 NA (45,103,844) (3,419,800) (20,894,824) (920,715) (125,110) (25,360,449) 14,744,774 (1 72) 832,947,428 14,744,774	2015 (119,446,686) 64,673,140 NA (54,773,546) (4,124,774) (22,572,370) (1,110,516) (150,901) (27,958,560) 14,702,656 (190) 357,485,082 14,702,656	2016 (163,588,778) 92,162,105 NA (71,426,673) (5,403,344) (25,294,698) (1,454,746) (197,676) (32,350,464) 14,703,821 (2 20) 376,275,097 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2012-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
D		100.053.400	122 002 071	1 40 000 607			100 151 510	122 105 000	100 455 000	120.000.000	126 502 520
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,705,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	/3,558,28/	/8,2/2,259	82,6/3,386	87,223,385	97,979,807	117,977,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(47,947,716)	(101,224,567)	(80,071,075)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(770,019)	(647,970)	412,968	2,924,138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217,192,412	326.881.959	398.664.399	372.012.372	400.371.190	408.835.716	400.259.968	421.077.583	446,165,007	433,526,775	457.953.097
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions:	2006	2007	2008	2009	<u>2010</u>	2011	2012	2013	2014	2015	<u>2016</u>
Gross Plant in Service	0	0	0	0	0	0	0	49,718	(81,628,969)	(164,976,584)	(170,735,733)
Accumulated Depreciation	0	0	0	0	0	0	0	23,524,131	47,668,013	74,653,598	104,651,772
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	23,573,850	(33,960,956)	(90,322,987)	(66,083,960)
Return On Rate Base	0	0	0	0	0	0	0	1.807.411	(2,574,939)	(6,801,858)	(4,999,174)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	(23,524,131)	(23,850,855)	(26,559,231)	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	486,611	(693,253)	(1.831.270)	(1.345,931)
State Income Taxes	0	0	0	0	0	0	0	66,122	(94,202)	(248,839)	(182,890)
Deferred Income Taxes									(,,,,,	(.,,	(- ,,
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	(21,163,988)	(27,213,249)	(35,441,198)	(33,993,239)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(1 45)	(1 85)	(2 41)	(2 31)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326,881,959	398,664,399	372.012.372	400,371,190	408,835,716	400,259,968	399,913,595	418.951.758	398.085.577	423,959,858
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	27.48	28.41	27.08	28.83

Measurement Period: 2012-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000:2	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	(8,260,524)	(25,760,199)	(47,596,332)	(74,045,495)
Accumulated Depreciation	0	0	0	0	0	0	0	6,990,491	17,888,288	29,898,050	44,292,498
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	(1,270,033)	(7,871,910)	(17,698,282)	(29,752,997)
Return On Rate Base	0	0	0	0	0	0	0	(97,374)	(596,853)	(1,332,786)	(2,250,779)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	(6,990,491)	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	(26,216)	(160,691)	(358,827)	(605,979)
State Income Taxes	0	0	0	0	0	0	0	(3,562)	(21,835)	(48,759)	(82,342)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	(7,117,643)	(11,590,100)	(13,590,137)	(16,319,134)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(0 49)	(0 79)	(0 92)	(111)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	392,795,952	407,361,658	384,495,440	407,640,723
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	26.99	27.63	26.15	27.72
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	<u>2011</u>	2012	2013	<u>2014</u>	2015	<u>2016</u>
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	2008 0	<u>2009</u> 0	<u>2010</u> 0	<u>2011</u> 0	<u>2012</u> 0	<u>2013</u> (536,070)	<u>2014</u> (11,574,093)	<u>2015</u> (43,516,301)	2016 (85,082,142)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	2008 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	<u>2011</u> 0 0	<u>2012</u> 0 0	2013 (536,070) 10,853,370	2014 (11,574,093) 31,883,422	<u>2015</u> (43,516,301) 54,740,998	2016 (85,082,142) 81,892,975
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 0 0 NA	2011 0 0 NA	2012 0 0 NA	2013 (536,070) 10,853,370 NA	<u>2014</u> (11,574,093) 31,883,422 NA	2015 (43,516,301) 54,740,998 NA	2016 (85,082,142) 81,892,975 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 (536,070) 10,853,370 NA 10,317,299	2014 (11,574,093) 31,883,422 NA 20,309,329	2015 (43,516,301) 54,740,998 NA 11,224,697	2016 (85,082,142) 81,892,975 NA (3,189,168)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 NA 0 0	2009 0 0 NA 0 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 NA 0 0	2009 0 0 NA 0 0	2010 0 0 NA 0 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0 0	2012 0 NA 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365)	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824)	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370)	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0 0	2012 0 NA 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365)	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824)	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370)	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0	2012 0 NA 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365)	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824)	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370)	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0	2012 0 NA 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	2012 0 NA 0 0 0 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0	2012 0 NA 0 0 0 0 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 0 NA 0 0 0 0 0 0	2010 0 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0	2012 0 NA 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0	2012 0 NA 0 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0 0	2009 0 0 0 0 0 0 0 0 0 0 0 0	2010 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2012 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939 (9,820,427)	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334 (18,884,046)	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924 (21,468,582)	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826) (25,609,734)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 0 0 14,779,272	2007 0 0 0 0 0 0 0 0 0 0 0 0 0 15,543,706	2008 0 NA 0 0 0 0 0 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193	2010 0 0 NA 0 0 0 0 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902	2012 0 0 NA 0 0 0 0 14,537,470	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939 (9,820,427) 14,555,494	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334 (18,884,046) 14,744,774	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924 (21,468,582) 14,702,656	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826) (25,609,734) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00	2007 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15,543,706 0 00	2008 0 NA 0 0 0 0 0 15,342,576 0 00	2009 0 NA 0 0 0 0 0 0 14,715,193 0 00	2010 0 0 NA 0 0 0 0 14,576,188 000	2011 0 0 NA 0 0 0 0 14,403,902 0 00	2012 0 0 NA 0 0 0 0 14,537,470 0 00	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939 (9,820,427) 14,555,494 (0 67)	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334 (18,884,046) 14,744,774 (1 28)	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924 (21,468,582) 14,702,656 (1 46)	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826) (25,609,734) 14,703,821 (174)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 0 0 0 0 0 0 0 0 15,543,706 0 00 326,881,959	2008 0 0 0 0 0 0 0 0 15,342,576 0 00 398,664,399	2009 0 NA 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190	2011 0 0 NA 0 0 0 0 14,403,902 0 00 408,835,716	2012 0 0 NA 0 0 0 0 14,537,470 0 00 400,259,968	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939 (9,820,427) 14,555,494 (0 67) 382,975,525	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334 (18,884,046) 14,744,774 (128) 388,477,612	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924 (21,468,582) 14,702,656 (1 46) 363,026,858	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826) (25,609,734) 14,703,821 (174) 382,030,989
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Operating & Maintenance Expense Depreciation Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 15,543,706	2008 0 0 0 0 0 0 0 15,342,576 0 00 398,664,399 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193 0 00 372,012,372 14,715,193	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902 0 00 408,835,716 14,403,902	2012 0 0 NA 0 0 0 0 14,537,470 0 00 400,259,968 14,537,470	2013 (536,070) 10,853,370 NA 10,317,299 791,029 (10,853,365) 212,969 28,939 (9,820,427) 14,555,494 (0 67) 382,975,525 14,555,494	2014 (11,574,093) 31,883,422 NA 20,309,329 1,539,865 (20,894,824) 414,579 56,334 (18,884,046) 14,744,774 (128) 388,477,612 14,744,774	2015 (43,516,301) 54,740,998 NA 11,224,697 845,286 (22,572,370) 227,577 30,924 (21,468,582) 14,702,656 (146) 363,026,858 14,702,656	2016 (85,082,142) 81,892,975 NA (3,189,168) (241,257) (25,294,698) (64,954) (8,826) (25,609,734) 14,703,821 (174) 382,030,989 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2013-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
Pature On Pata Paga	64 124 515	100 072 480	122 002 071	140 080 607	144 705 658	145 852 670	128 451 742	122 495 009	128 457 222	120 006 877	126 582 720
Operating & Maintenance Expanse	04,124,515	112 008 106	135,092,971	121 104 040	144,705,058	145,855,079	130,431,743	135,465,908	136,437,223	121 405 825	130,362,739
Depreciation Expense	38 586 107	63 647 725	73 558 287	78 272 250	82 673 386	87 223 385	07 070 807	141,947,527	133,214,927	126 319 661	130,145,750
Amortization Expense	5 662 778	9 141 066	9.063.026	8 407 431	9,090,180	8 660 604	7 679 640	8 268 200	8 060 338	8 521 880	8 602 851
Taxes Other Than Income	9,609,011	11 989 900	14 060 167	15 439 056	17 203 839	19 052 597	19 151 857	19 728 897	20 128 593	20 996 832	21 800 785
Federal Income Taxes	10 360 962	22 917 351	(8 228 622)	(47 947 716)	(101 224 567)	(80.071.075)	(52 659 018)	(22 320 370)	(34 470 831)	(13 355 054)	6 315 414
State Income Taxes	1.354.613	4.376.898	429.505	(4.447.668)	(11.062.618)	(8.721.273)	(4.834.371)	(770.019)	(647,970)	412.968	2.924.138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87.034.858	125,582,322	104.256.684	72.928.113	37.266.342	65,285,463	37,775,968	25.003.898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1.323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
	217 102 412	226 001 050	200 ((4 200	272 012 272	400 271 100	400 025 71 (400 250 060	421 077 582	446 165 007	122 526 775	457.052.007
Revenue Requirement (\$)	217,192,412	326,881,959	398,664,399	3/2,012,3/2	400,371,190	408,835,716	400,259,968	421,077,583	446,165,007	433,526,775	457,953,097
N w n @ input	14,//9,2/2	15,545,700	15,542,576	14,/15,195	14,3/0,188	14,405,902	14,557,470	14,555,494	14,/44,//4	14,702,636	14,705,821
Revenue Requirement (3/M wil)	14.70	21.05	23.98	23.28	27.47	28.38	27.55	26.95	50.20	29.49	51.15
Scenario 1: Calpine Removal of Major Plant Capital Additions: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	0	(81,729,645)	(165,078,160)	(170,840,755)
Accumulated Depreciation	0	0	0	0	0	0	0	0	23,850,855	50,623,414	79,806,265
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	(57,878,789)	(114,454,747)	(91,034,490)
Return On Rate Base	0	0	0	0	0	0	0	0	(4.388,403)	(8.619.124)	(6.886.652)
Operating & Maintenance Expense									())	(-,, ,	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Depreciation Expense	0	0	0	0	0	0	0	0	(23,850,855)	(26,559,231)	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	(1,181,493)	(2,320,533)	(1,854,099)
State Income Taxes	0	0	0	0	0	0	0	0	(160,545)	(315,322)	(251,941)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	(29,581,297)	(37,814,210)	(36,457,936)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(2 01)	(2 57)	(2 48)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326.881.959	398.664.399	372.012.372	400.371.190	408.835.716	400.259.968	421.077.583	416.583.709	395.712.565	421.495.161
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	28.25	26.91	28.67

Measurement Period: 2013-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000:2	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	0	(9,033,357)	(30,719,883)	(56,596,443)
Accumulated Depreciation	0	0	0	0	0	0	0	0	10,810,721	22,757,179	36,909,344
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	1,777,363	(7,962,704)	(19,687,099)
Return On Rate Base	0	0	0	0	0	0	0	0	134,761	(599,639)	(1,489,306)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	0	(10,810,721)	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	36,282	(161,441)	(400,967)
State Income Taxes	0	0	0	0	0	0	0	0	4,930	(21,937)	(54,485)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	(10,634,748)	(12,632,783)	(15,324,791)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(0 72)	(0 86)	(1 04)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	421,077,583	405,948,961	383,079,783	406,170,370
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	27.53	26.06	27.62
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u> 0	<u>2009</u> 0	<u>2010</u> 0	<u>2011</u> 0	<u>2012</u> 0	<u>2013</u> 0	2014 (10,488,597)	2015 (42,421,097)	2016 (83,949,778)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	<u>2011</u> 0 0	<u>2012</u> 0 0	<u>2013</u> 0 0	2014 (10,488,597) 20,894,857	<u>2015</u> (42,421,097) 43,654,150	2016 (83,949,778) 70,429,959
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 0 0 NA	2011 0 0 NA	2012 0 0 NA	2013 0 0 NA	<u>2014</u> (10,488,597) 20,894,857 NA	<u>2015</u> (42,421,097) 43,654,150 NA	2016 (83,949,778) 70,429,959 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 0 0 NA 0	2014 (10,488,597) 20,894,857 NA 10,406,261	2015 (42,421,097) 43,654,150 NA 1,233,053	2016 (83,949,778) 70,429,959 NA (13,519,819)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 0 NA 0 0	2009 0 0 NA 0	2010 0 0 NA 0 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0	2013 0 0 NA 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 0 NA 0 0	2010 0 NA 0 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0	2013 0 0 NA 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 0 NA 0 0 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824)	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370)	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0	2012 0 NA 0 0 0	2013 0 NA 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824)	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370)	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0	2012 0 NA 0 0	2013 0 NA 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824)	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370)	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 0 NA 0 0 0	2012 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	2012 0 0 0 0 0 0 0 0 0 0	2013 0 NA 0 0 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	2012 0 NA 0 0 0 0 0 0 0 0	2013 0 NA 0 0 0 0 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0 0	2009 0 NA 0 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0	2012 0 0 NA 0 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397	2016 (83,949,778) 70,429,559 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0	2012 0 0 NA 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2012 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865 (19,864,525)	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397 (22,451,117)	2016 (83,949,778) 70,429,559 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417) (26,630,231)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272	2007 0 NA 0 0 0 0 0 15,543,706	2008 0 0 0 0 0 0 0 0 15,342,576	2009 0 NA 0 0 0 0 0 0 14,715,193	2010 0 NA 0 0 0 0 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902	2012 0 0 NA 0 0 0 0 14,537,470	2013 0 0 NA 0 0 0 0 14,555,494	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865 (19,864,525) 14,744,774	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397 (22,451,117) 14,702,656	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417) (26,630,231) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 0 14,779,272 0 00	2007 0 NA 0 0 0 0 0 0 15,543,706 0 00	2008 0 NA 0 0 0 0 0 0 15,342,576 000	2009 0 NA 0 0 0 0 0 0 14,715,193 0 00	2010 0 NA 0 0 0 0 14,576,188 000	2011 0 0 NA 0 0 0 0 14,403,902 0 00	2012 0 NA 0 0 0 0 0 14,537,470 0 00	2013 0 NA 0 0 0 0 0 14,555,494 0 00	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865 (19,864,525) 14,744,774 (1 35)	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397 (22,451,117) 14,702,656 (1 53)	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417) (26,630,231) 14,703,821 (1 81)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (S) MWh @ Input Revenue Requirement (S/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (S)	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 NA 0 0 0 0 0 0 15,543,706 000 326,881,959	2008 0 0 0 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 0 0 NA 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190	2011 0 0 NA 0 0 0 0 14,403,902 0 00 408,835,716	2012 0 0 NA 0 0 0 0 0 14,537,470 0 00 400,259,968	2013 0 0 NA 0 0 0 0 14,555,494 000 421,077,583	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865 (19,864,525) 14,744,774 (135) 386,084,436	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397 (22,451,117) 14,702,656 (1 53) 360,628,666	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417) (26,630,231) 14,703,821 (1 81) 379,540,139
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 15,543,706 000 326,881,959 15,543,706	2008 0 0 NA 0 0 0 0 0 15,342,576 0 00 398,664,399 15,342,576	2009 0 0 NA 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 0 NA 0 0 0 0 14,576,188 000 400,371,190 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902 000 408,835,716 14,403,902	2012 0 0 NA 0 0 0 0 14,537,470 0 00 400,259,968 14,537,470	2013 0 0 NA 0 0 0 0 14,555,494 0 00 421,077,583 14,555,494	2014 (10,488,597) 20,894,857 NA 10,406,261 789,009 (20,894,824) 212,425 28,865 (19,864,525) 14,744,774 (1 35) 386,084,436 14,744,774	2015 (42,421,097) 43,654,150 NA 1,233,053 92,856 (22,572,370) 25,000 3,397 (22,451,117) 14,702,656 (1 53) 360,628,666 14,702,656	2016 (83,949,778) 70,429,959 NA (13,519,819) (1,022,758) (25,294,698) (275,358) (37,417) (26,630,231) 14,703,821 (1 81) 379,540,139 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2014-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
D		100.053.400	122 002 071	1 40 000 607			100 151 510	122 105 000	100 155 000	120.000.000	126 502 520
Return On Rate Base	64,124,515	109,072,480	133,092,971	140,980,607	144,705,658	145,853,679	138,451,743	133,485,908	138,457,223	130,996,877	136,582,739
Operating & Maintenance Expense	92,140,549	112,008,196	125,482,619	121,104,940	152,130,476	150,819,888	138,323,152	141,947,327	135,214,927	131,405,825	130,145,756
Depreciation Expense	38,586,197	63,647,725	/3,558,28/	/8,2/2,259	82,6/3,386	87,223,385	97,979,807	117,977,610	124,957,867	126,319,661	134,023,569
Amortization Expense	5,662,778	9,141,066	9,063,926	8,407,431	9,090,180	8,660,604	7,679,640	8,268,200	8,969,338	8,521,880	8,692,851
Taxes Other Than Income	9,609,011	11,989,900	14,060,167	15,439,056	17,203,839	19,052,597	19,151,857	19,728,897	20,128,593	20,996,832	21,800,785
Federal Income Taxes	10,360,962	22,917,351	(8,228,622)	(47,947,716)	(101,224,567)	(80,071,075)	(52,659,018)	(22,320,370)	(34,470,831)	(13,355,054)	6,315,414
State Income Taxes	1,354,613	4,376,898	429,505	(4,447,668)	(11,062,618)	(8,721,273)	(4,834,371)	(770,019)	(647,970)	412,968	2,924,138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87,034,858	125,582,322	104,256,684	72,928,113	37,266,342	65,285,463	37,775,968	25,003,898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Revenue Requirement (\$)	217.192.412	326,881,959	398,664,399	372.012.372	400,371,190	408.835.716	400,259,968	421.077.583	446,165,007	433.526.775	457,953,097
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	31.15
Scenario 1: Calpine Removal of Major Plant Capital Additions:	2006	2007	2008	2009	<u>2010</u>	2011	2012	2013	2014	2015	<u>2016</u>
Gross Plant in Service	0	0	0	0	0	0	0	0	0	(156,856)	(323,817)
Accumulated Depreciation	0	0	0	0	0	0	0	0	0	26,559,231	54,925,607
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	0	26,402,375	54,601,790
Return On Rate Base	0	0	0	0	0	0	0	0	0	1,988,256	4,130,561
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	0	0	(26,559,231)	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	0	535,300	1.112.074
State Income Taxes	0	0	0	0	0	0	0	0	0	72,738	151,112
Deferred Income Taxes										. ,	- /
Misc Revenue & Expenses											
Revenue Credits											
	-										
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	0	(23,962,937)	(22,071,496)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(1 63)	(1 50)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326.881.959	398.664.399	372.012.372	400.371.190	408.835.716	400.259.968	421.077.583	446,165,007	409.563.838	435.881.601
MWh @ Input	14.779.272	15.543.706	15.342.576	14,715,193	14,576,188	14.403.902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	27.86	29.64

Measurement Period: 2014-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000:	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	0	0	(12,491,575)	(37,749,665)
Accumulated Depreciation	0	0	0	0	0	0	0	0	0	11,849,765	25,631,851
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	0	(641,810)	(12,117,814)
Return On Rate Base	0	0	0	0	0	0	0	0	0	(48,332)	(916,698)
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	0	0	(11,849,765)	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	0	(13,012)	(246,803)
State Income Taxes	0	0	0	0	0	0	0	0	0	(1,768)	(33,536)
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	0	(11,912,878)	(14,577,072)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(0 81)	(0 99)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	421,077,583	446,165,007	397,650,960	421,304,529
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	27.05	28.65
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u> 0	<u>2009</u> 0	<u>2010</u> 0	<u>2011</u> 0	<u>2012</u> 0	<u>2013</u> 0	<u>2014</u> 0	<u>2015</u> (21,256,279)	<u>2016</u> (62,066,857)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	<u>2011</u> 0 0	<u>2012</u> 0 0	<u>2013</u> 0 0	<u>2014</u> 0 0	<u>2015</u> (21,256,279) 22,572,404	<u>2016</u> (62,066,857) 48,632,929
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	2009 0 0 NA	2010 0 0 NA	2011 0 0 NA	2012 0 0 NA	2013 0 0 NA	2014 0 0 NA	2015 (21,256,279) 22,572,404 NA	<u>2016</u> (62,066,857) 48,632,929 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 0 NA 0	2009 0 0 NA 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 0 0 NA 0	2014 0 0 NA 0	2015 (21,256,279) 22,572,404 NA 1,316,126	2016 (62,066,857) 48,632,929 NA (13,433,928)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 0 NA 0	2009 0 NA 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 0 0 NA 0	2014 0 0 NA 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0 0	2007 0 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 0 NA 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0	2013 0 0 NA 0 0	2014 0 NA 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperceitation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 0 NA 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 0 0 NA 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370)	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0	2011 0 NA 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 0 NA 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370)	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0	2008 0 NA 0 0	2009 0 NA 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0	2012 0 NA 0 0	2013 0 NA 0 0	2014 0 NA 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370)	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperceitation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 0 NA 0 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 0 0 NA 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperceitation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 0 0 0 0 0 0 0 0 0	2009 0 NA 0 0 0 0	2010 0 0 NA 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	2012 0 NA 0 0 0 0 0 0 0 0	2013 0 0 NA 0 0 0 0	2014 0 0 NA 0 0 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	2012 0 0 NA 0 0 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0 0	2014 0 0 NA 0 0 0 0	2015 (21,256,279) 22,572,404 1,316,126 99,112 (22,572,370) 26,684 3,626	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0	2012 0 0 NA 0 0 0 0	2013 0 0 NA 0 0 0 0 0	2014 0 0 0 0 0 0 0 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 0 NA 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0	2012 0 0 NA 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0	2014 0 0 NA 0 0 0 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626	2016 (62,066,857) (48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Deperciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Misc Revenue de Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0	2007 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 0 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0 0 0 0 0	2011 0 0 0 0 0 0 0 0 0 0 0 0 0	2012 0 0 0 0 0 0 0 0 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2014 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626 (22,442,948)	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input	2006 0 NA 0 0 0 0 0 0 14,779,272	2007 0 0 NA 0 0 0 0 15,543,706	2008 0 0 NA 0 0 0 0 15,342,576	2009 0 0 NA 0 0 0 0 14,715,193	2010 0 0 0 0 0 0 0 0 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902	2012 0 0 NA 0 0 0 0 14,537,470	2013 0 0 NA 0 0 0 0 14,555,494	2014 0 0 NA 0 0 0 0 0 14,744,774	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626 (22,442,948) 14,702,656	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179) (26,621,746) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deperciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 0 14,779,272 000	2007 0 0 NA 0 0 0 0 15,543,706 0 00	2008 0 NA 0 0 0 0 0 15,342,576 0 00	2009 0 0 0 0 0 0 0 0 0 14,715,193 000	2010 0 0 NA 0 0 0 0 14,576,188 000	2011 0 0 NA 0 0 0 0 14,403,902 0 00	2012 0 0 NA 0 0 0 0 14,537,470 000	2013 0 0 NA 0 0 0 0 14,555,494 0 00	2014 0 0 NA 0 0 0 0 14,744,774 000	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626 (22,442,948) 14,702,656 (1 53)	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179) (26,621,746) 14,703,821 (1 81)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh (@ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 0 14,779,272 0 00 217,192,412	2007 0 0 NA 0 0 0 0 15,543,706 000 326,881,959	2008 0 0 0 0 0 0 0 0 15,342,576 000 398,664,399	2009 0 0 NA 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 0 NA 0 0 0 0 14,576,188 000 400,371,190	2011 0 0 NA 0 0 0 0 14,403,902 0 00 408,835,716	2012 0 0 NA 0 0 0 0 14,537,470 0 00 400,259,968	2013 0 0 NA 0 0 0 0 14,555,494 000 421,077,583	2014 0 0 NA 0 0 0 0 14,744,774 000 446,165,007	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626 (22,442,948) 14,702,656 (1 53) 375,208,012	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179) (26,621,746) 14,703,821 (1 81) 394,682,783
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 15,543,706 0 00 326,881,959 15,543,706	2008 0 0 NA 0 0 0 0 15,342,576 000 398,664,399 15,342,576	2009 0 0 NA 0 0 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 0 0 NA 0 0 0 0 0 14,576,188 000 44,576,188	2011 0 0 NA 0 0 0 0 0 14,403,902 0 00 408,835,716 14,403,902	2012 0 0 NA 0 0 0 0 0 14,537,470 0 00 400,259,968 14,537,470	2013 0 0 NA 0 0 0 0 14,555,494 0 00 421,077,583 14,555,494	2014 0 0 NA 0 0 0 0 0 14,744,774 0 00 446,165,007 14,744,774	2015 (21,256,279) 22,572,404 NA 1,316,126 99,112 (22,572,370) 26,684 3,626 (22,442,948) 14,702,656 (1 53) 375,208,012 14,702,656	2016 (62,066,857) 48,632,929 NA (13,433,928) (1,016,261) (25,294,698) (273,609) (37,179) (26,621,746) 14,703,821 (1,81) 394,682,783 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.

Measurement Period: 2015-2016

PacifiCorp Calculation: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Rate Base	719,894,639	1,336,508,766	1,648,371,025	1,713,216,752	1,736,954,242	1,815,681,297	1,794,346,075	1,741,041,460	1,826,116,636	1,739,528,889	1,805,483,948
Pature On Pata Paga	64 124 515	100 072 480	122 002 071	140.080.607	144 705 659	145 852 670	128 451 742	122 495 009	128 457 222	120 006 977	126 582 720
Operating & Maintenance Expanse	04,124,515	112 008 106	135,092,971	121 104 040	144,705,058	145,855,079	138,431,743	135,465,908	136,437,223	130,990,877	130,362,739
Depreciation Expense	38 586 107	63 647 725	73 558 287	78 272 250	82 673 386	87 223 385	07 070 807	141,947,527	133,214,927	131,405,825	130,145,750
Amortization Expense	5 662 778	9 141 066	9.063.9267	8 407 431	9,000,180	8 660 604	7 679 640	8 268 200	8 969 338	8 521 880	8 602 851
Taxes Other Than Income	9,609,011	11 989 900	14 060 167	15 439 056	17 203 839	19 052 597	19 151 857	19 728 897	20 128 593	20 996 832	21 800 785
Federal Income Taxes	10 360 962	22 917 351	(8 228 622)	(47 947 716)	(101 224 567)	(80.071.075)	(52 659 018)	(22 320 370)	(34 470 831)	(13 355 054)	6 315 414
State Income Taxes	1.354.613	4.376.898	429.505	(4.447.668)	(11.062.618)	(8.721.273)	(4.834.371)	(770.019)	(647,970)	412.968	2.924.138
Deferred Income Taxes	(764,258)	10,795,533	68,400,565	87.034.858	125,582,322	104.256.684	72,928,113	37.266.342	65,285,463	37,775,968	25.003.898
Misc Revenue & Expenses	(394,395)	(2,708,250)	(3,682,256)	(2,066,374)	(1,323,121)	(705,446)	(370,209)	(125,422)	(80,155)	(233,471)	(87,310)
Revenue Credits	(3,487,558)	(14,358,942)	(13,512,764)	(24,765,022)	(17,404,366)	(17,533,328)	(16,390,747)	(14,380,891)	(11,649,449)	(9,314,713)	(7,448,743)
Deserve Deserve (C)	217 102 412	226 881 050	208 664 200	272 012 272	400 271 100	409 925 716	400 250 068	421 077 592	446 165 007	422 526 775	457 052 007
MWh @ Input	217,192,412	320,881,939	15 242 576	3/2,012,3/2	400,571,190	408,855,710	400,239,968	421,077,385	440,105,007	433,320,773	437,933,097
Revenue Requirement (\$/MWb)	14,779,272	21.03	25.98	25.28	27.47	14,405,902	14,557,470	78.03	30.26	20.40	31 15
Revenue Requirement (3/M wil)	14.70	21.05	23.78	23.26	27.47	28.56	21.55	28.95	50.20	2).4)	51.15
Scenario 1: Calpine Removal of Major Plant Capital Additions: ¹	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	0	0	0	540
Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	27,465,244
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	0	0	27,465,784
Return On Rate Base	0	0	0	0	0	0	0	0	0	0	2,077,754
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	0	0	0	(27,465,244)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	0	0	559,395
State Income Taxes	0	0	0	0	0	0	0	0	0	0	76,013
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	0	0	(24,752,082)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(1 68)
Revenue Requirement excl Major Plant Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	421,077,583	446,165,007	433,526,775	433,201,015
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 1 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	29.46

Measurement Period: 2015-2016

PacifiCorp State of Oregon Historical Time Series of Fixed Generation Costs by Component

Scenario 2: Calpine Removal of Capital Additions <\$1,000,000: ²	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gross Plant in Service	0	0	0	0	0	0	0	0	0	0	(11,918,858)
Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	13,380,034
Accumulated Deferred Income Taxes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Rate Base	0	0	0	0	0	0	0	0	0	0	1,461,176
Return On Rate Base	0	0	0	0	0	0	0	0	0	0	110,536
Operating & Maintenance Expense											
Depreciation Expense	0	0	0	0	0	0	0	0	0	0	(13,380,034)
Amortization Expense											
Taxes Other Than Income											
Federal Income Taxes	0	0	0	0	0	0	0	0	0	0	29,760
State Income Taxes	0	0	0	0	0	0	0	0	0	0	4,044
Deferred Income Taxes											
Misc Revenue & Expenses											
Revenue Credits											
Revenue Requirement (\$)	0	0	0	0	0	0	0	0	0	0	(13,235,694)
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Revenue Requirement (\$/MWh)	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	(0 90)
Revenue Requirement excl Major Plant & <\$1M Additions (\$)	217,192,412	326,881,959	398,664,399	372,012,372	400,371,190	408,835,716	400,259,968	421,077,583	446,165,007	433,526,775	419,965,321
MWh @ Input	14,779,272	15,543,706	15,342,576	14,715,193	14,576,188	14,403,902	14,537,470	14,555,494	14,744,774	14,702,656	14,703,821
Scenario 2 (\$/MWh)	14.70	21.03	25.98	25.28	27.47	28.38	27.53	28.93	30.26	29.49	28.56
									2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades:	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service	<u>2006</u> 0	<u>2007</u> 0	<u>2008</u> 0	<u>2009</u> 0	<u>2010</u> 0	<u>2011</u> 0	<u>2012</u> 0	<u>2013</u> 0	<u>2014</u> 0	<u>2015</u> 0	<u>2016</u> (18,111,886)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation	<u>2006</u> 0 0	<u>2007</u> 0 0	<u>2008</u> 0 0	<u>2009</u> 0 0	<u>2010</u> 0 0	<u>2011</u> 0 0	<u>2012</u> 0 0	<u>2013</u> 0 0	<u>2014</u> 0 0	<u>2015</u> 0 0	(18,111,886) 25,294,663
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes	2006 0 0 NA	2007 0 0 NA	2008 0 0 NA	0 0 NA	2010 0 0 NA	2011 0 0 NA	2012 0 0 NA	2013 0 0 NA	<u>2014</u> 0 0 NA	0 0 NA	2016 (18,111,886) 25,294,663 NA
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base	2006 0 NA 0	2007 0 0 NA 0	2008 0 NA 0	0 0 NA 0	2010 0 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 0 0 NA 0	0 0 NA 0	0 0 NA 0	2016 (18,111,886) 25,294,663 NA 7,182,777
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base	2006 0 NA 0	2007 0 0 NA 0 0	2008 0 NA 0 0	0 0 NA 0	2010 0 NA 0	2011 0 0 NA 0	2012 0 0 NA 0	2013 0 0 NA 0	2014 0 0 NA 0	0 0 NA 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ³ Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense	2006 0 NA 0	2007 0 NA 0 0	2008 0 NA 0 0	0 0 NA 0	2010 0 NA 0	2011 0 NA 0 0	2012 0 0 NA 0	2013 0 0 NA 0	2014 0 0 NA 0 0	2015 0 0 NA 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 NA 0 0 0	2012 0 NA 0 0 0	2013 0 NA 0 0 0	2014 0 0 NA 0 0 0	0 0 NA 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense	2006 0 NA 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0 0	2009 0 NA 0 0 0	2010 0 0 NA 0 0 0	2011 0 0 NA 0 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 0 0 NA 0 0 0	0 0 NA 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income	2006 0 NA 0 0 0	2007 0 NA 0 0 0	2008 0 NA 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0	2011 0 0 NA 0 0 0	2012 0 0 NA 0 0 0	2013 0 0 NA 0 0 0	2014 0 0 NA 0 0 0	0 0 NA 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	2009 0 NA 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0	2012 0 0 NA 0 0 0 0	2013 0 0 NA 0 0 0	2014 0 0 NA 0 0 0 0	0 0 NA 0 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) 146,292
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 0 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0	0 0 NA 0 0 0 0	2010 0 0 NA 0 0 0 0 0 0 0	2011 0 0 NA 0 0 0 0 0 0 0	0 0 NA 0 0 0 0 0	2013 0 0 NA 0 0 0 0 0 0 0	2014 0 0 NA 0 0 0 0 0 0 0	2015 0 0 NA 0 0 0 0 0 0 0	2010 (18,111,886) 25,294,663 7,182,777 543,369 (25,294,698) (25,294,698) 146,292 19,879
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	0 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0	0 0 NA 0 0 0 0	2013 0 0 NA 0 0 0 0	2014 0 0 NA 0 0 0 0	2015 0 0 NA 0 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) 146,292 19,879
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Deferred Income Taxes Misc Revenue & Expenses	2006 0 NA 0 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	0 0 NA 0 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 0 0 0 0 0 0	0 0 NA 0 0 0 0 0	2013 0 0 0 0 0 0 0 0 0 0	2014 0 0 0 0 0 0 0 0 0 0	2015 0 0 0 0 0 0 0 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) 146,292 19,879
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits	2006 0 NA 0 0 0 0	2007 0 NA 0 0 0 0	2008 0 NA 0 0 0 0	0 0 NA 0 0 0 0	2010 0 NA 0 0 0 0	2011 0 0 NA 0 0 0 0 0	0 0 NA 0 0 0 0	2013 0 0 0 0 0 0 0	2014 0 0 0 0 0 0 0	2015 0 0 0 0 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) (25,294,698) 146,292 19,879
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$)	2006 0 NA 0 0 0 0 0	2007 0 0 0 0 0 0 0 0 0 0	2008 0 NA 0 0 0 0 0	0 0 NA 0 0 0 0 0	2010 0 0 0 0 0 0 0	2011 0 0 0 0 0 0 0 0 0 0 0 0 0	<u>2012</u> 0 0 0 0 0 0 0	2013 0 0 0 0 0 0 0 0 0 0 0 0 0	2014 0 0 0 0 0 0 0 0 0 0 0 0 0	2015 0 0 0 0 0 0 0 0 0 0 0 0 0	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) 146,292 19,879 (24,585,159)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Credits	2006 0 NA 0 0 0 0 0 14,779,272	2007 0 0 NA 0 0 0 0 15,543,706	2008 0 0 0 0 0 0 0 15,342,576	0 0 NA 0 0 0 0 0 0 14,715,193	2010 0 0 0 0 0 0 0 0 14,576,188	2011 0 0 0 0 0 0 0 14,403,902	2012 0 0 0 0 0 0 0 14,537,470	2013 0 0 0 0 0 0 0 14,555,494	2014 0 0 NA 0 0 0 0 14,744,774	2015 0 0 0 0 0 0 0 14,702,656	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) (25,294,698) 146,292 19,879 (24,585,159) 14,703,821
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh)	2006 0 NA 0 0 0 0 0 14,779,272 000	2007 0 0 NA 0 0 0 0 15,543,706 0 00	2008 0 0 0 0 0 0 0 0 15,342,576 0 00	0 0 NA 0 0 0 0 0 0 14,715,193 000	2010 0 0 NA 0 0 0 0 14,576,188 000	2011 0 0 NA 0 0 0 0 14,403,902 0 00	2012 0 0 0 0 0 0 0 14,537,470 0 00	2013 0 0 NA 0 0 0 0 14,555,494 0 00	2014 0 0 NA 0 0 0 0 14,744,774 0 00	2015 0 0 NA 0 0 0 0 14,702,656 0 00	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) (25,294,698) 146,292 19,879 (24,585,159) 14,703,821 (1 67)
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes Deferred Income Taxes Misc Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Revenue Requirement (\$/MWh) Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412	2007 0 0 NA 0 0 0 0 0 15,543,706 0 00 326,881,959	2008 0 0 0 0 0 0 0 0 15,342,576 000 398,664,399	0 0 NA 0 0 0 0 0 0 0 14,715,193 000 372,012,372	2010 0 NA 0 0 0 0 0 14,576,188 000 400,371,190	2011 0 0 NA 0 0 0 0 14,403,902 000 408,835,716	2012 0 0 NA 0 0 0 0 0 14,537,470 000 400,259,968	2013 0 0 NA 0 0 0 0 14,555,494 000 421,077,583	2014 0 0 NA 0 0 0 0 14,744,774 000 446,165,007	2015 0 0 NA 0 0 0 0 0 14,702,656 0 00 433,526,775	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) (25,294,698) (25,294,698) (24,585,159) 14,703,821 (1 67) 395,380,163
Scenario 3: Calpine Removal of Steam Plant Environmental Upgrades: ² Gross Plant in Service Accumulated Depreciation Accumulated Deferred Income Taxes Total Rate Base Return On Rate Base Operating & Maintenance Expense Depreciation Expense Amortization Expense Taxes Other Than Income Federal Income Taxes State Income Taxes State Income Taxes Deferred Income Taxes Neise Revenue & Expenses Revenue Credits Revenue Requirement (\$) MWh @ Input Rev Req excl Major & Minor Plant Adds & Env Upgrades (\$)	2006 0 NA 0 0 0 0 0 14,779,272 000 217,192,412 14,779,272	2007 0 0 NA 0 0 0 0 0 0 0 0 0 0 0 0 0	2008 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NA 0 0 0 0 0 14,715,193 000 372,012,372 14,715,193	2010 0 NA 0 0 0 0 0 14,576,188 000 400,371,190 14,576,188	2011 0 0 NA 0 0 0 0 14,403,902 000 408,835,716 14,403,902	0 0 NA 0 0 0 0 0 14,537,470 000 400,259,968 14,537,470	2013 0 0 0 0 0 0 0 14,555,494 000 421,077,583 14,555,494	2014 0 0 NA 0 0 0 0 14,744,774 000 446,165,007 14,744,774	2015 0 0 NA 0 0 0 0 0 14,702,656 000 433,526,775 14,702,656	2016 (18,111,886) 25,294,663 NA 7,182,777 543,369 (25,294,698) 146,292 19,879 (24,585,159) 14,703,821 (1 67) 395,380,163 14,703,821

Notes: 1. NA = Data not available at the time of filing.

2. Federal and state income tax calculation assumes 50%/50% debt and equity capital structure components

Data Sources:

1. PacifiCorp Exhibit 110 workpaper.