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6 7	BEFORE THE WASHINGTON UTILITIES	A NID TD A NICHODT A TION COMMISSION
	DEPORE THE WASHINGTON UTILITIES	AND TRAINSPORTATION COMMISSION
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9	ATTORA CORPORATION	
10	AVISTA CORPORATION	
11 12	for Authority to Call its Interest in the	DOCKET NO. UE-991255
13	for Authority to Sell its Interest in the Coal-Fired Centralia Power Plant	
14	Coal-Fried Centralia I owel Flaint	
15		
16	In the Matter of the Application of	
17)	DOCKET NO. UE-991262
18	PACIFICORP)
19	Ý	
20	for an Order Approving the Sale of its	
21	Interest in (1) the Centralia Steam) in the second
22 23	Electric Generating Plant, (2) the Rate	
23	Based Portion of the Centralia Coal Mine,	
24	and (3) Related Facilities; for a	
25	Determination of the Amount of and the)	
26	Proper Rate Making Treatment of the)	
27	Gain Associated with the Sale, and for an)	
28	EWG Determination.	
29 30		
21)	
31 32	In the Matter of the Application of)	
33	in the Matter of the Application of	DOCKET NO. UE-991409
34	PUGET SOUND ENERGY, INC.	DOCKET NO. 0E-331403
35)	
36	for (1) Approval of the Proposed Sale of	
37	PSE's Share of the Centralia Power Plant	
38	and Associated Transmission Facilities,	
39	and (2) Authorization to Amortize Gain	· · · · · · · · · · · · · · · · · · ·
40	Over a Five-Year Period.	vo \
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16	DIRECT TESTIMONY	
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		WILL DOCKET NO C - 90
		WUTC DOCKET NO. UE-991255
		EXHIBIT NO. <u>70/</u>
		ADMIT W/D REJECT
		ADMITTED WINDLESSED IN THE SECTION OF THE SECTION O

1	<u>Qua</u>	lifications
2	Q.	Please state your name, business address and position with the NW Energy
3		Coalition.
4	A.	My name is Nancy Hirsh. My business address is 219 First Ave. South, Suite
5		100, Seattle, WA 98104. I am the policy director for the NW Energy
6		Coalition (NWEC).
7	Q.	Please describe your education, business experience and responsibilities.
8	×	I graduated from the University of Michigan in 1984 with a B.S. in natural resource
9		policy. I have been working for the Energy Coalition since 1996. Prior to joining
10		the Energy Coalition, I worked for Environmental Action Foundation in
11		Washington, D.C. for 10 years. During that time I worked on national energy
12		policy, federal investments in energy efficiency and renewable resources and
13		sustainable transportation policy.
14	Q.	Have you previously testified in regulatory proceedings?
15	A.	Yes. I have testified before the D.C. and Georgia Public Service Commissions, the
16		Public Utility Commission of Oregon and the Washington Utilities and
17		Transportation Commission. My previous testimony concerned integrated resource
18		planning, cost allocation issues, and the public benefit concerns from utility
19		mergers.
20	<u>Purp</u>	ose of Testimony
21	Q.	What is the purpose of your testimony?
22	A.	My testimony will explain why NWEC believes that:
23		• the type of power purchased to replace the power from Centralia is a
24		fundamental issue in determining that the sale is consistent with the public
25		interest;
26		• the net sale proceeds should flow back to customers and benefit the
27		environment.

Power Replacement

- 2 *Q.* Should quantitative financial gain be the only determining factor when judging if the sale is in the public interest?
- 4 A. No. For the purpose of our testimony in this proceeding, we do not dispute the
- 5 market price offered for the Centralia plant. We acknowledge that Public Counsel
- 6 has made a compeling argument that current market forecasts have significantly
- 7 improved the economic value of the plant and call into question the benefits of the
- 8 sale. The public interest, however, can not be solely determined by speculating on
- 9 whether the market price is correct. The consumer should receive other benefits in
- addition to price. The financial gain from the sale should be used to provide
- additional or different services or benefits that are in the public interest. In the
- 12 Commission's Third Supplemental Order in the Colstrip sale, the Commission says
- that "the public interest is broader than a mathematical calculation of costs and
- 14 benefits." (Docket No. UE-990267, Page 19.)
- 15 Q. Where is the value to the customer in the sale?
- 16 A. Taking advantage of the cash earned from the sale and investing some of it in
- cleaner, less polluting power resources provides benefits (such as cleaner air and
- reduced threat of climate change) that are in the public interest. Acknowledging the
- 19 environmental impact of fossil-fuel generated electricity and using the power supply
- reconfiguration and financial benefits that occur from this sale to support a more
- 21 environmentally sustainable power mix will add value to customers.
- 22 Q. Why is Centralia's environmental history important in the sale?
- A. For more than 25 years, the Centralia coal plant has emitted significant quantities of
- 24 air pollution. The plant is the largest single source of air pollution in the Pacific
- Northwest. The region, Washington state in particular, has had to suffer the
- 26 environmental and human health impacts from annual emissions of 9.96 million
- 27 tons of carbon dioxide (CO₂), 64,000 tons of sulfur dioxide, 16,000 tons of

1	٠	nitrogen oxides and unmeasured amounts of mercury. While the 1998 order from
2		the Southwest Air Pollution Control Authority addressed reductions in sulphur
3 .		dioxide and nitrogen oxides associated with the plant, it did not deal with CO ₂ or
4		toxic emissions like mercury. ² While installation of the SO ₂ scrubbers is welcome
5		and long overdue, they will consume 3% of the plant's output in order to operate.
6		This means a commensurate increase in CO ₂ emissions.
7	Q.	What are the applicants proposing for power replacement?
8	A.	Avista states in Mr. Johnson's testimony (Exhibit T-303, Page 2) that a short-term
9		market purchase of 1-3 years or a 1-3 year buy-back from TransAlta will be
10		pursued. Long-term power replacement would come from market purchases, new
11		generation facilities and/or demand side options.
12		Mr. Miller's testimony (Exhibit T-206, Page 23) for PacifiCorp seems to
13		imply that the Company will buy back 4 million-megawatt hours per year from
14	v	TransAlta and will balance its remaining load and resources with market purchases
15		However, Mr. Miller's testimony is not entirely clear as to whether this buy back
16		from TransAlta will occur.
17		Mr. Gaines' testimony (Exhibit T-100, Pages 5-6) states that if replacement
18		is necessary, PSE will consider spot market purchases, shorter fixed-term
19		purchases, DSM, renewable energy or cost-effective distributed generation.
20		However, it is worth noting that on Page 10 of this exhibit, Mr. Gaines states that
21		the Company already has discussed power purchase agreements with gas-fired
22		plant developers. Mr. Gaines goes on to say that the sale of the plant will "allow
23		PSE to pursue the benefits of the emerging robust wholesale market for new
24		generation" (line 21-22, Page 10, Exhibit T-100)

¹ U.S. Environmental Protection Agency data.

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Q.

What kind of power replacement plan will make the sale in the public interest?

² SWAPCA 97-2057R1 Regulatory Order to Establish RACT Emission Limits and Order of Approval. Centralia Plant, PacifiCorp, et. al. Centralia, Washington.

1 A. One that results in a low carbon purchase. We recommend that each of the utilities 2 in this proceeding issue a request for replacement power (RFP) with low carbon 3 dioxide emissions. We recommend that Avista, PacifiCorp and PSE set a goal for 4 the low carbon power product to have CO₂ emissions that do not exceed 0.7 lbs 5 CO₂/kWh of net electric power output. This emissions level is the Oregon Energy 6 Facility Siting Council standard for new power plants. It sets the standard at 17 percent below the emissions of the most efficient base-load plant operating in the 7 United States.³ The RFP should be issued for all or a significant part of the 8 9 replacement power needed. Winning bids should be evaluated on both price and 10 emissions.

We recognize that the uncertainty of the sale and sale date make short-term power replacement options limited. We anticipate that most of the owners of Centralia will buy back power from TransAlta for the first year following the sale. A low carbon RFP could be issued to meet supply needs in years two and beyond. Locking in a power replacement commitment beyond the first year at this time seems unnecessary and forecloses the opportunity to pursue a low carbon alternative.

18 *Q.* How does Centralia and a generic market purchase compare with the Oregon standard?

A. Centralia emits 9.96 million tons of CO₂ annually. This is equivalent to 2.48

lbs/kWh. CO₂ emissions for the Western grid (WSCC) are 1.056 lbs/kWh.⁴

Emissions in the Northwest Power Pool are 0.92 lbs of CO₂/kWh.⁵ Emissions

above 0.7 lbs/kWh should be offset. These numbers indicate that there could be an

easy opportunity for the market, if given the right signal, to create a low CO₂

product.

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³ Oregon HB3283 - enrolled, 1997.

⁴ U.S. Environmental Protection Agency, Egrid, 1996 data.

⁵ Portland General Electric's Energy Label - "What is Behind Your Power". www.PGE-Online.com

Q. Why is it in the public interest to secure a low carbon power replacement product?
A. The energy system in our region has a tremendous impact on air quality, natural resources, the economy and our environment. The Western power market is 40% fossil fuels (coal, gas and oil).⁶ Generating electricity in the U.S. is responsible for the emission of more than 20% of all toxic heavy metals, 32% of particulates, 33% of all nitrogen oxides, 36% of carbon dioxide and over 70% of all sulfur dioxides.⁷ Fossil fuels are major sources of acid rain, pollution-caused illnesses, habitat destruction, smog and greenhouse gases.

Carbon dioxide emissions from all sources make up the majority of greenhouse gases emitted. Internationally, the scientific community recognizes global climate change as one of the most serious environmental issues facing the world. The Clinton Administration signed the 1997 Kyoto Protocol to control greenhouse gas emissions and is committed to reducing CO₂ by 7 percent below 1990 levels between 2008 and 2012. In addition, at the Conference of the Parties in Bonn, Germany, last October, the U.S. was singled out as an industrial nation not doing enough to reduce emissions. Both international and national pressure increase the likelihood that there will be restrictions and/or fees on CO₂ emissions and there may be incentives and/or mandates supporting alternative low carbon fuels.

The Climate Impacts Group at the University of Washington has done both climatic and economic research evaluating the impacts of climate change on the Northwest. A study released in the Fall of 1999 shows that the Northwest can expect climate change to create warmer and wetter winters, increased flooding, impacts on salmon runs and impact forest growth. Polls show that Northwest citizens are concerned about climate change and willing to invest in solutions. A

⁶ Northwest Power Planning Council and Oregon Office of Energy.

⁷ U.S. Environmental Protection Agency data.

1		10w carbon power product will reduce the fisk to Avista, Pacificorp and PSE of
2		carbon restriction initiatives at the national and perhaps state levels.
3		Given the fuel mix of the WSCC, undifferentiated market purchases face
4		similar risks from future carbon restrictions as Centralia does. A low carbon
5		market purchase reduces this risk.
6	Q.	How much will a low carbon power product cost?
7	A.	We believe that such a product is available in the marketplace for little or no
8		premium above a standard market product. If the low-carbon RFP,
9		notwithstanding our expectations, elicits bid premiums that the company and
10		Commission deem excessive, then the low-carbon purchase need not be
11		consummated. Our goal with this recommendation is to challenge the market, not
12		to lock in a purchase regardless of the price.
13	Q.	What if there is a slight premium?
14	A.	A portion of the net sale proceeds that goes to customers or a portion of the revenue
15		requirement not used to replace the power from Centralia (as discussed on the next
16		page) should be used to offset the premium.
17	Q.	Are consumers willing to use some of the net sale proceeds from this sale for such a
18		purpose?
19	A.	Yes. Consistently, surveys and focus groups done in the Northwest and nationally
20		show that citizens are concerned about the environmental degradation that occurs
21		from generating electricity and are supportive of investments in clean power sources
22		such as non-hydro renewable resources. A recent report from the Bonneville
23		Power Administration reviewed surveys, polls and focus groups conducted by
24	×	utilities and others in the Northwest and found that consumers overwhelmingly
25		"support environmentally sound practices regarding resource acquisition." There

⁸ <u>Renewable Resources and Conservation: What Consumers Want</u>. Edward Ferguson, Bonneville Power Administration, April 21, 1999.

1		is strong evidence that consumers are willing to pay more for products delivered or
2		manufactured in an environmentally friendly manner. In Pennsylvania, for
3		example, 10 percent of customers have switched suppliers since open access began
4		and 14 percent of those who have switched have chosen a green power product.9
5	Q.	Should power replacement strategies be done in the context of long range planning
6	A.	Yes. With the sale of this resource, each utility faces a new least-cost planning
7		paradigm. All three of the applicants are in the midst of updating their integrated
8		resource plans or least-cost plans. Reliance solely on undifferentiated supplies has
9		its own risks and does not necessarily incorporate societal least-cost principles.
10		The Commission recognized the need for continued utility long-range planning in
11		its Colstrip Third Supplemental Order (Docket No. UE-990267) by stating that "the
12		'new world' of power supply will, in all likelihood, require more planning rather
13		than less." (page 21-22) We believe that a least-cost planning analysis will
14		identify a low carbon power replacement strategy as a cost-effective approach to
15		meeting each applicants replacement power needs.
16	Q.	Will each utility need to replace all of the power from Centralia?
17	A.	Probably not. Least-cost plans will help identify how much of the power from
8		Centralia needs to be replaced. If not all of the power needs to be replaced, then the
9		company has financial resources that they were spending on the power from
20		Centralia that could now be used to purchase environmentally beneficial low carbon
21		power resources.
22	Alloc	eation of the Net Sale Proceeds
23	Q.	What is each company proposing to do with the net sale proceeds?
24	A.	Avista is proposing that all of the gain be retained by shareholders because of the
25		long-term benefits that customers have received from Avista, past losses borne by

⁹ <u>Assessment of Green Power, A Moving Target In Current Climate of Restructuring</u>. Mark Glyde, NW Energy Coalition Report. November 1999.

shareholders and current low cost market purchases that benefit customers but not shareholders. Mr. Dukich's testimony (Exhibit T-306, Page 8,) also supports the depreciation method proposed by PacifiCorp should the Commission not support Avista's allocation.

PacifiCorp is proposing a depreciation reserve methodology that is based upon the percentage of capital costs that have been recovered over time from customers (Direct Testimony of Ms. Eakin, Page 3). This method allocates 64% of the gain to customers and 36% to shareholders.

PSE proposes to amortize the gain for shareholders over five years. PSE states that the sale is consistent with the Commission's Puget/Washington Natural Gas merger order urging PSE to pursue cost savings (Direct Testimony of Mr. Gaines, T-101, Page 15). Cost savings from the sale should therefore accrue to shareholders.

Q. How does NWEC think the gain on the sale should be treated?

A.

Each company should be made whole on the book value of the plant. All of the remaining proceeds should then be allocated to the benefit of ratepayers and the environment.

Avista's statement that they have been underearning in most years since 1973 reflects only the fact that they have not chosen to go in for a rate case on a regular basis. There is nothing stopping the Company from earning its allowed rate of return. The regulatory compact (or lag between rate cases) provides an incentive to a company to be efficient such that efficiencies accrue to shareholders between rate cases. The low cost market purchase example outlined in Mr. Dukich's testimony (Exhibit T-306, Page 7) illustrates an example of a smart power purchase executed by the Company such that it retains the difference between the approved revenue requirement and the low market cost until the next rate case. Providing

1 low rates and high quality service to customers is to be expected from a regulated 2 utility in the Northwest and Avista is recognized as just such a leader. 3 The depreciation reserve methodology outlined by PacifiCorp appears to 4 provide shareholders with bonus returns above their authorized rate of return. It is 5 not clear why the revenues from the sale should be treated any differently from any other revenues collected by the company. NWEC supports the analysis and 6 7 conclusions put forward in the direct testimony of Bob Jenks of the Citizens' Utility 8 Board (CUB) of Oregon on this matter as submitted to the Public Utility Commission of Oregon in Docket UP168 (Exhibit 702). 9 10 The Commission states in the Colstrip Order that "the Commission in its 11 order approving the merger did not grant PSE permission to sell used and useful 12 generation assets as a power cost savings." (Docket No. UE-990267, Page 18) 13 Given this decision, the net sale proceeds should accrue to customers. 14 Q. How should the net sale proceeds be allocated to customers? 15 A. Allocation of the net sale proceeds to customers will deliver the economic value that 16 the utilities' customers have already paid for. This benefit can materialize in three 17 ways: rate adjustments, clean energy investments and buy down of generation-18 related regulatory assets. We propose that the net proceeds be divided in thirds and 19 allocated to each of the three categories listed above as appropriate. 20 Q. Are there other clean energy investments for the net sale proceeds that will benefit 21 the environment in addition to low carbon power replacement? 22 A. As stated earlier, customers are concerned about the environmental impacts from 23 power generation. The Centralia generating plant utilizes old technology and a dirty 24 fuel stock. The Northwest is a region known for leadership on environmental 25 protection and technological innovation. In addition to supporting a low carbon 26 power replacement purchase, a portion of the gain on the sale should be used to

take advantage of the leadership in the Northwest in the development of advanced

1 clean energy technologies. Avista, PacifiCorp, PSE and the Commission should 2 support a clean energy technology initiative to provide investments in new advanced 3 clean energy development. NWEC believes that the Companies should maximize new investment in sustainable technologies in the aftermath of the sale. 4 5 Investments in clean energy technologies will help position each company to take 6 advantage of growing market interest in more environmentally preferred power 7 sources. Such investments can be made directly by the utility or through a third 8 party regional organization whose mission is further development of new clean 9 energy technologies and competitive markets.

Summary

- 11 Q. Can you summarize your testimony?
- 12 Yes, after 27 years of uncontrolled air emissions from Centralia, it is important for A. 13 the owners to invest in or purchase resources that will provide both competitive 14 power for their customers and improve environmental quality. Requesting a low 15 carbon power product will challenge the market to create such a product, thereby 16 pushing the Western market toward cleaner generating resources. Such an 17 investment is also less risky for consumers given the likelihood of future 18 environmental regulation. All of the net sale proceeds should benefit customers and 19 the environment. Customers began bearing the full cost of Centralia once it was 20 placed in rates and consequently should receive 100 percent of the benefits from the 21 sale. These benefits should be allocated to customers in ways that reflect the 22 financial and environmental impacts of this resource.
- Q. Is this testimony different from the testimony you submitted in Oregon in Docket
 UP168, regarding PacifiCorp's sale of Centralia?
- 25 A. Yes. My testimony is different in a few respects. First, I have addressed the cases
 26 put forward by Avista and Puget Sound Energy in this testimony. Neither are
 27 parties in the Oregon proceeding. Second, I have made some clarifying edits and

- 1 additions that further illustrate my arguments. And finally, I have acknowledged
- 2 analysis done by Public Counsel's witness regarding the value of the plant.
- 3 Q. Does this conclude your testimony?
- 4 A. Yes it does.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NOS. UE-991255, UE-991262, UE-991409 APPLICATIONS TO SELL THE CENTRALIA POWER PLANT

EXHIBIT NO. 702

WITNESS: Nancy Hirsh, NW ENERGY COALITION

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UTIL. AND TRANSP.

WUTC DOCKET NO. ve-991255

EXHIBIT NO. 702

ADMIT W/D REJECT

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UP168

In the Matter of the Application of PacifiCorp) for an Order Approving the Sale of its DIF Interest in (1) the Centralia Steam Electric BOI Generating Plant, (2) the Ratebased Portion CIT of the Centralia Coal Mine, and (3) related facilities; for a Determination of the Amount of and the Proper Ratemaking Treatment of the Gain Associated with the Sale; and for an EWG Determination.

DIRECT TESTIMONY OF BOB JENKS FOR THE CITIZENS' UTILITY BOARD

I am Bob Jenks. My qualifications are listed in CUB Exhibit 2. My testimony will cover the proper method to allocate the net proceeds from the sale of PacifiCorp's share of Centralia, the shortcomings of the "depreciation reserve methodology" and PacifiCorp's method of estimating the benefit provided to customers, and the environmental considerations appurtenant to the sale.

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- I. 100% of the Net Proceeds of the Sale of Centralia Belong to the Customer
- A. Why customers get 100%.

Before I explain why 100% of the net proceeds of the sale of Centralia belong to PacifiCorp's customers, I must clear the air of PacifiCorp's confusing and misleading rhetoric on the subject over the past few years. The net proceeds of the sale of this unit are not profits to be equitably shared

between shareholders and customers; the net proceeds are not a windfall; the principle that gives 100% of the net proceeds to customers is not a penalty to a low-cost utility; any sharing of the net proceeds, including the "depreciation reserve methodology", is not a balancing of the interests of customers and shareholders—it is not a reasonable compromise.

Simply put, any sharing of the net proceeds of the sale with shareholders grossly undermines historical ratemaking, essentially allows for shareholder rates of return that was greater than allowed and is a customer ripoff of epic proportions that will cause rates to be much higher than they would otherwise be.

Most parties and the Commission are aware of our arguments that all the net proceeds of the sale of Centralia belong to customers. We have said it many times in many ways: Our arguments are based on historical and current regulatory policy. Customers have paid for the investment in the plant and the front-loaded profit to the utility in the expectation that the resource would be dedicated to customers for the life of the asset. If we don't sell the asset, the output value of the resource accrues to customers. The net proceeds of the sale simply reflect the output value of the remaining life of the plant as against market prices. Shareholders will have recovered the lion's share of their expected profit in the plant from customers and the overall proceeds of a sale go first to pay off the remaining book value. Shareholders can now take the cash payment up to the book value and invest that money in the stock market or other markets and earn a much higher return than the regulated rates of return they are wont to complain about. Of course, they could lose money in the market, too, an outcome that is virtually impossible in the regulatory world where the Company has customers to underwrite both investment and profit.

In UE 102 the Commission adopted a transition cost sharing mechanism that allocated 95% of the costs to customers and a 5% mitigation share to the Portland General Electric. Order No. 99-033, p. 38, Jan. 27, 1999. The Commission went on to say "we note that it is symmetric: PGE will receive 5 percent of any net transition benefits (where the sale price exceeds the book value) and could thus receive more than the book value of the investment."

We agree with the Commission's underlying principle that the sharing of the transition costs is a symmetry of a sharing of transition benefits. The principle of transition benefits is exactly the same in determining who gets the proceeds from a simple sale of a generating asset. We do depart from the Commission's reasoning in UE 102 where it applies to a mitigation share. The auction for Centralia had already occurred prior to the Company's filing. If the Commission finds the past auction was proper and in the public interest, there is no need for a forward-looking mitigation incentive. Therefore we ask the Commission to allocate 100% percent of the Centralia proceeds to customers.

Any transfer of the net proceeds of the sale of the Centralia plant to shareholders deprives customers of their expected value in the lifetime of the resource and increases the rate of return for shareholders beyond the authorized amount.

B. Why PacifiCorp's "depreciation reserve methodology" must be rejected.

Perhaps there is no better way to explain the correct allocation of net proceeds than by studying PacifiCorp's proposed "depreciation reserve methodology". PPL/13/Eakin/3.

PacifiCorp has come up with a theory, without policy rationale or justification, that is couched in

1	terms that "sound fair". It is in fact a regulatory rip-off designed to transfer millions of dollars to
2	shareholders. Quite simply, the theory attempts to share the net proceeds of an asset sale in
3	proportion to the amount customers have paid the company in return of investment. It ignores
4	the fact that in regulatory policy, we have priced assets relatively flatly year to year and
5	shareholders receive much of their profit in the early years of an asset's life, and in a nising market
6	customers receive much of their value at the back end of an asset's useful life.

- Allocating the proceeds from the sale of a plant based on PacifiCorp's methodology will:
- Allow a company to increase its rate of return above what is authorized;
- Undermine the least cost planning process that looked at customer benefits over the lifetime of
 an asset;
- 11 3. Turn prudent investments into imprudent investments; and
- 4. Cause rates to go up as a result of the sale of the asset and transfer value from customers to shareholders.

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We decided that a visual would be instructive. In CUB's graph, presented below, we have created an imaginary generation asset and its depreciation schedule. The asset cost is \$500,000,000 and its expected useful life is 30 years. The authorized rate of return is 10%. We have picked imaginary O&M costs (15 mills) and an imaginary beginning market price (21.1 mills); both costs and the market grow at the same annual rate of 2%. For the purposes of this exercise, actual market prices or forecasts are irrelevant.

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5 2 16,666,667 46,866,667 1,53 1,27 2,80 2,15 6 3 18,666,667 45,000,000 1,56 1,23 2,79 2,20 7 4 16,666,667 43,333,333 1,59 1,20 2,79 2,24 8 5 16,666,667 40,000,000 1,66 1,17 2,79 2,28 9 6 16,666,667 38,333,333 1,69 1,10 2,79 2,33 10 7 16,666,667 36,666,667 1,72 1,07 2,79 2,47 12 9 16,666,667 35,000,000 1,76 1,03 2,79 2,47 13 10 16,666,667 31,686,667 1,83 0,97 2,80 2,57 15 12 16,666,667 30,000,000 1,87 0,93 2,80 2,67 15 12 16,666,667 26,333,333 1,90 0,90 2,80 2,68 17 <td>4</td> <td>1</td> <td>16,666,667</td> <td>48,333,333</td> <td>1.50</td> <td></td> <td>2.80</td> <td>2.11</td>	4	1	16,666,667	48,333,333	1.50		2.80	2.11
6 3 16,666,667 45,000,000 1.56 1.23 2.79 2.20 7 4 16,666,667 43,333,333 1.59 1.20 2.79 2.24 8 5 16,666,667 41,666,667 1.62 1.17 2.79 2.28 9 6 16,666,667 40,000,000 1.86 1.13 2.79 2.33 10 7 16,666,667 38,333,333 1.69 1.10 2.79 2.38 11 6 16,666,687 35,000,000 1.76 1.03 2.79 2.47 12 9 16,666,687 35,000,000 1.76 1.03 2.79 2.52 14 11 16,666,687 31,686,687 1.83 0.97 2.80 2.57 15 12 16,666,687 30,000,000 1.87 0.93 2.80 2.68 17 14 16,666,687 28,333,333 1.90 0.90 2.80 2.85 18 </td <td></td> <td></td> <td></td> <td>N N N N</td> <td>1.53</td> <td>1.27</td> <td>2.80</td> <td>2.15</td>				N N N N	1.53	1.27	2.80	2.15
7 4 16,666,667 43,333,333 1.59 1.20 2.79 2.24 8 5 16,666,667 41,666,667 1.62 1.17 2.79 2.28 9 6 16,666,667 40,000,000 1.66 1.13 2.79 2.33 10 7 16,666,667 38,333,333 1.69 1.10 2.79 2.42 12 9 16,666,687 35,000,000 1.76 1.03 2.79 2.47 13 10 16,666,667 31,866,867 1.83 0.97 2.80 2.57 14 11 16,666,667 31,866,867 1.83 0.97 2.80 2.57 15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,667 26,333,333 1.90 0.90 2.80 2.88 17 14 16,666,667 25,000,000 1.98 0.83 2.81 2.73 1				45,000,000	1.56	1.23	2.79	2.20
8 5 16,665,667 41,666,667 1.62 1.17 2.79 2.28 9 6 16,666,667 40,000,000 1.66 1.13 2.79 2.33 10 7 16,666,667 38,333,333 1.69 1.10 2.79 2.38 11 8 16,666,667 35,000,000 1.76 1.03 2.79 2.47 12 9 16,666,667 33,333,333 1.79 1.00 2.79 2.52 14 11 16,666,667 31,686,667 1.83 0.97 2.80 2.57 15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.57 16 13 16,666,667 26,666,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,33 2.02 0.80 2.82 2.84 2			16,666,667	43,333,333	1.59	1.20	2.79	2,24
9 6 16,666,687 40,000,000 1.68 1.13 2.79 2.33 10 7 16,666,687 36,333,333 1.69 1.10 2.79 2.38 11 8 16,666,687 36,666,687 1.72 1.07 2.79 2.42 12 9 16,666,687 35,000,000 1.76 1.03 2.79 2.47 13 10 16,666,687 31,666,667 1.83 0.97 2.80 2.57 14 11 16,666,687 31,666,667 1.83 0.97 2.80 2.57 15 12 16,666,687 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,687 28,333,333 1.90 0.90 2.80 2.68 17 14 16,666,687 28,333,333 1.90 0.90 2.80 2.81 18 15 16,666,687 25,000,000 1.98 0.83 2.81 2.73 18 15 16,666,687 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,687 21,666,687 2.00 0.00 1.98 0.83 2.81 2.78 20 17 16,666,687 21,666,687 2.00 0.00 2.10 0.73 2.83 2.90 21 18 16,666,687 21,666,687 2.00 0.00 2.10 0.73 2.83 2.90 22 19 16,666,687 18,333,33 2.14 0.70 2.84 3.01 23 20 16,686,687 18,333,333 2.14 0.70 2.84 3.01 24 21 16,666,687 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,687 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,687 11,333,333 2.77 0.60 2.87 3.20 26 23 16,686,687 11,666,687 2.32 0.57 2.89 3.26 27 24 16,666,687 15,000,000 2.37 0.53 2.90 3.23 28 25 16,666,687 8.333,333 2.41 0.50 2.91 3.33 29 26 16,666,687 8.333,333 2.41 0.50 2.91 3.33 29 26 16,666,687 8.333,333 2.41 0.50 2.91 3.33 30 27 16,686,687 3.333,333 2.56 0.40 2.96 3.63 31 28 16,666,687 3.333,333 2.56 0.40 2.96 3.63 32 29 16,666,687 3.333,333 2.56 0.40 2.96 3.63 33 30 16,666,687 1.666,687 2.66 0.33 3.00 3.75 34 total return: 676,666,687 2.66 0.33 3.00 3.75		5	16,666,667	41,666,667	1.62	1.17	2.79	2.28
10 7 16,666,667 38,333,333 1.69 1.10 2.79 2.38 11 8 16,666,667 36,666,667 1.72 1.07 2.79 2.42 12 9 16,666,667 35,000,000 1.76 1.03 2.79 2.47 13 10 16,666,667 31,686,667 1.83 0.97 2.80 2.57 14 11 16,666,667 31,686,667 1.83 0.97 2.80 2.57 15 12 16,666,667 28,333,333 1.90 0.90 2.80 2.62 16 13 16,666,667 26,666,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 21,666,667 2.06 0.77 2.83 2.90 21 18 16,666,667 21,666,667 2.06 0.77 2.83 2.95		6	16,666,667	40,000,000	1.66	1.13	2.79	2.33
11 8 16,686,687 39,686,687 1.72 1.07 2.79 2.42 12 9 16,686,687 35,000,000 1.76 1.03 2.79 2.47 13 10 16,686,687 33,333,333 1.79 1.00 2.79 2.52 14 11 16,686,687 31,686,687 1.83 0.97 2.80 2.57 15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,667 28,333,333 1.90 0.90 2.80 2.68 17 14 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,333 2.02 0.80 2.82 2.84 20 17 16,666,667 23,333,333 2.02 0.80 2.82 2.84 21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.90	10		16,666,667	38,333,333	1.69	1.10	2.79	2.38
12 9 16,686,667 35,000,000 1.76 1.03 2.79 2.47 13 10 16,686,667 33,333,333 1.79 1.00 2.79 2.52 14 11 16,686,667 31,686,667 1.83 0.97 2.80 2.57 15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,667 26,868,667 1.94 0.87 2.81 2.73 18 15 16,666,667 26,868,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.73 19 16 16,666,667 21,686,667 2.06 0.77 2.83 2.90 21 18 16,666,667 21,686,667 2.06 0.77 2.83 2.90 21 18 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 18,333,333 2.14 0.70 2.85 <t< td=""><td></td><td>8</td><td></td><td></td><td>1.72</td><td>1.07</td><td>2.79</td><td>2.42</td></t<>		8			1.72	1.07	2.79	2.42
14 11 16,666,667 31,686,667 1.83 0.97 2.80 2.57 15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,667 28,333,333 1.90 0.90 2.80 2.68 17 14 16,666,667 26,686,687 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 21,686,667 2.06 0.77 2.83 2.84 20 17 16,666,667 21,686,667 2.06 0.77 2.83 2.93 21 18 16,666,667 21,686,667 2.06 0.77 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 15,000,000 2.23 0.67 2.85 3.07 24 21 16,666,6667 15,000,000 2.23 0.57 2.89	12		16,666,667	35,000,000	1.76	1.03	2.79	2.47
15 12 16,666,667 30,000,000 1.87 0.93 2.80 2.62 16 13 16,666,667 28,333,333 1.90 0.90 2.80 2.68 17 14 16,666,667 26,668,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,333 2.02 0.80 2.82 2.84 20 17 16,666,667 21,666,667 2.08 0.77 2.83 2.90 21 18 16,666,667 21,666,667 2.00 0.00 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 15,000,000 2.23 0.67 2.85 3.07 24 21,666,6667 13,333,333 2.27 0.60 2.87 3.26 27 24,666,667 13,333,333 2.27 0.60 2.87 3.26	13	10	16,666,667	33,333,333	1.79	1.00	2.79	2.52
16 13 16,686,667 28,333,333 1.90 0.90 2.80 2.81 17 14 16,666,667 26,666,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,333 2.02 0.80 2.82 2.84 20 17 16,666,667 21,666,667 2.06 0.77 2.83 2.90 21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 18,666,667 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 10,000,000 2.37 0.53 2.90 <	14	11	16,666,667	31,666,667	1.83	0.97	2.80	2.57
17 14 16,666,667 26,666,667 1.94 0.87 2.81 2.73 18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,333 2.02 0.80 2.62 2.84 20 17 16,666,667 21,666,667 2.06 0.77 2.83 2.90 21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,667 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 10,000,000 2.37 0.53 2.90 3.33 29 26 16,666,667 8,333,333 2.41 0.50 2.91 <t< td=""><td>15</td><td>12</td><td>16,666,667</td><td>30,000,000</td><td>1.87</td><td>0.93</td><td>2.80</td><td>2.62</td></t<>	15	12	16,666,667	30,000,000	1.87	0.93	2.80	2.62
18 15 16,666,667 25,000,000 1.98 0.83 2.81 2.78 19 16 16,666,667 23,333,333 2.02 0.80 2.82 2.84 20 17 16,666,667 21,686,667 2.06 0.77 2.83 2.90 21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,667 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,667 2.32 0.57 2.89 3.26 27 24 16,666,667 8,333,333 2.41 0.50 2.91 3.39 28 25 16,666,667 8,333,333 2.41 0.50 2.91 <td< td=""><td>16</td><td>13</td><td>16,666,667</td><td>28,333,333</td><td>1.90</td><td>0.90</td><td>2.80</td><td>2.68</td></td<>	16	13	16,666,667	28,333,333	1.90	0.90	2.80	2.68
19 16 16,666,667 23,333,333 2.02 0.80 2.82 2.84 20 17 16,666,667 21,666,667 2.06 0.77 2.83 2.90 21 18 16,668,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,667 2.19 0.67 2.85 3.07 24 21 16,566,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,667 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 10,000,000 2.37 0.53 2.90 3.33 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 6,666,667 2.46 0.47 2.93 3.46 31 28 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 1,666,667 2.61 0.37 2.98 3.67 34 total return: 676,666,667 2.66 0.33 3.00 3.75	17	14	16,666,667	26,666,667	1.94	0.87	2.81	2.73
20 17 16,666,667 21,666,667 2.06 0.77 2.83 2.90 21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,687 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,867 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.36 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 3,333,333 2.56 0.40 2.96	18	15	16,665,667	25,000,000	1.98	0.83	2.81	2.78
21 18 16,666,667 20,000,000 2.10 0.73 2.83 2.95 22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,667 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,686,687 11,686,687 2.32 0.57 2.89 3.26 27 24 16,686,687 10,000,000 2.37 0.53 2.90 3.33 28 25 16,686,687 8,333,333 2.41 0.50 2.91 3.36 29 26 16,686,687 6,686,687 2.46 0.47 2.93 3.46 30 27 16,686,687 3,333,333 2.56 0.40 2.96 3.67 31 28 16,686,687 3,333,333 2.56 0.40 2.98 3	19	16	16,666,667	23,333,333	2.02	0.80	2.82	2.84
22 19 16,666,667 18,333,333 2.14 0.70 2.84 3.01 23 20 16,666,667 16,666,667 2.19 0.67 2.85 3.07 24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,667 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.36 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.67 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.	20	17	16,666,667	21,666,667	2.06	0.77	2.83	2.90
23 20 16,686,687 18,666,687 2.19 0.67 2.85 3.07 24 21 16,566,687 15,000,000 2.23 0.63 2.86 3.14 25 22 18,666,687 13,333,333 2.27 0.60 2.87 3.20 26 23 16,686,687 11,666,687 2.32 0.57 2.89 3.28 27 24 16,686,687 10,000,000 2.37 0.53 2.90 3.33 28 25 16,866,687 8,333,333 2.41 0.50 2.91 3.39 29 26 16,686,867 6,686,867 2.48 0.47 2.93 3.48 30 27 16,686,687 5,000,000 2.51 0.43 2.94 3.53 31 28 16,686,887 3,333,333 2.56 0.40 2.96 3.60 32 29 16,686,687 1,686,687 2.61 0.37 2.98 3.67 33 30 16,686,687 1,686,687 2.66 0.33 3.00 3.75 34 total return: 678,686,667 average cost 2.85 2.85	21	18	16,666,667	20,000,000	2.10	0.73	2.83	2.95
24 21 16,666,667 15,000,000 2.23 0.63 2.86 3.14 25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,667 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.39 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,866,667 1,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85 <td>22</td> <td>19</td> <td>16,666,667</td> <td>18,333,333</td> <td>2.14</td> <td>0.70</td> <td>2.84</td> <td>3.01</td>	22	19	16,666,667	18,333,333	2.14	0.70	2.84	3.01
25 22 16,666,667 13,333,333 2.27 0.60 2.87 3.20 26 23 16,666,667 11,666,667 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.39 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 26 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85	23	20	16,668,667	16,666,667	2.19	0.67	2.85	3.07
26 23 16,886,867 11,666,867 2.32 0.57 2.89 3.26 27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.39 29 26 16,666,867 6,666,867 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85	24	21	16,666,667	15,000,000	2.23	0.63	2.86	3.14
27 24 16,666,667 10,000,000 2.37 0.53 2.90 3.33 28 25 16,666,667 8,333,333 2.41 0.50 2.91 3.39 29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 18,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85	25	22	16,666,667	13,333,333	2.27	0.60	2.87	3.20
28	26	23	16,666,667	11,666,667	2.32	0.57	2.89	3.26
29 26 16,666,667 6,666,667 2.46 0.47 2.93 3.46 30 27 16,666,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85	27	24	16,666,667	10,000,000	2.37	0.53	2.90	3.33
30 27 16,866,667 5,000,000 2.51 0.43 2.94 3.53 31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85 35	28	25	16,666,667	8,333,333	2.41	0.50	2.91	3.39
31 28 16,666,667 3,333,333 2.56 0.40 2.96 3.60 32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85 35	29	26	16,666,667	6,666,667	2.46	0.47	2.93	3.46
32 29 16,666,667 1,666,667 2.61 0.37 2.98 3.67 33 30 18,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85 35	30	27	16,666,667	5,000,000	2.51	0.43	2.94	3.53
33 30 16,666,667 2.66 0.33 3.00 3.75 34 total return: 676,666,667 average cost 2.85 2.85	31	28	16,666,667	3,333,333	2.56	0.40	2.96	3.60
34 total return: 676,666,667 average cost 2.85 2.85	32	29	16,666,667	1,666,667	2.61	0.37	2.98	3,67
35	33	30	16,666,667		2.66	0.33	3.00	3.75
	34	90	total return:	676,666,667		average cost	2.85	2.85
36 10-year return: 408,333,333 10-year ave. cost 2.79 2.31	35							
	36		10-year return:	408,333,333		10-year ave. cost	2.79	2.31

Over the expected life of this plant, the output will cost customers the same as buying from the market. This plant represents a marginal resource and would be prudent to build.

The point of this visual is to show how the profits to the utility are front-loaded in the early years, and the benefit to the consumer, having a dedicated resource that produces power below the market price, emerge in the latter years of a resource. In other words, in a rising market, by pricing the regulated resource relatively flatly year to year, customers are paying more than market prices early and enjoying below-market rates later. All other things being equal, at the end of the 30-year life, shareholders have made back their entire investment plus a fairly certain 10% profit and customers have recovered the full value of their investment by receiving below-market power from the resource in the latter years of its life.

But what happens if the company sells the plant after 10 years for 1.5 times book value and uses the "depreciation reserve methodology" to allocate the proceeds of the sale?

Looking at the amounts paid to the utility in rate of return in year one through 10, one can see that after 10 years the shareholders have received more that 60% of their expected profit on the investment from customers. Meanwhile, customers have paid an average of 20.8% higher rates for the output than would be provided by the market. While customers have paid 60% of the Company's expected profits associated with the plant, customers have only paid for one third of the depreciation of the plant. Because the "depreciation reserve methodology" looks at the amount of plant paid off, shareholders would get two-thirds of the net gain from selling the plant.

Adding the two-thirds of the gain to the profits shareholders have already received raises their 10-year return to \$519.4 million, or an average rate of return of 12.7%, 270 basis points

above the authorized rate of return. While the shareholders are earning above the authorized rate of return for the previous 10 years, the shareholders are also made whole for their investment in the plant from the sale proceeds and the Company can invest this money any way it wants ranging from a low risk utility earning 10% to a high-risk enterprise earning twice as much.

Meanwhile, the one-third of the net proceeds going to customers would lower their average price of power produced at the plant during that 10-year period, but only to 2.63 cents, which is still 13.9% above the average market price during the same period. And ratepayers are deprived the additional below-market output in the plant expected in the latter years. Therefore, ratepayers pay above market rates for the first 10 years and as a 10-year resource it would have failed a least cost planning prudency test, even though it was initially a marginal resource over a 30-year period.

Fundamentally, the "depreciation reserve methodology" allows a utility to rob its customers of the value they have paid to receive. Because shareholder benefits accrue in the early years and ratepayer benefits tend to accrue in the latter years of a resource, such a methodology provides an incentive for utilities to sell an asset after shareholders have received most of their profits, but before the customers' value is realized. If the plant were to continue to operate, the future below-market benefits would flow to customers.

In a sense, this issue is little different from other revenues received by the company. How does it effect the Company's rate of return? PacifiCorp's proposal on how to allocate the net proceeds on the sale of Centralia is really a request by the Company to raise its rate of return beyond that justified by its costs and currently allowed by the Commission.

C. PacifiCorp is not even delivering the benefit to customers that they say they are sharing.

While claiming to share the above-book value associated with selling the plant to customers based on the "depreciation reserve methodology", a close look at Ms. Eakin's testimony shows that the company is not actually doing this. PPL/13/Eakin/4, lines 3-13. The company proposes to use the customer share of the gain to write off generation-related regulatory assets, beginning in the year the transaction closes. This will lower the revenue requirement at the next rate case. Until the next rate case, due to regulatory lag, shareholders would actually pocket the ratepayers' share of this gain. We will address whether the recently filed rate case is a valid filing in another forum.

D. Keep vs. Sell

PacifiCorp witness Weaver takes us through the exercise of comparing the net present value of the revenue requirement associated with selling the plant against the net present value of keeping the plant assuming that the plant is retrofitted with scrubbers. PPL/9/Weaver. Dr. Weaver's conclusion is that the sale of the plant creates a higher benefit than keeping it. Id. at 5. However, among the exercise's constants is the assumption that the net proceeds of the sale be allocated between customers and shareholders using the "depreciation reserve methodology". Id at 4. Dr. Weaver argues that even applying the "depreciation reserve methodology" to the net proceeds, the sale of the plant is better than keeping it, and therefore the sale of the plant is in the public interest.

We do not agree. A sharing of net proceeds from the sale of Centralia along the lines

suggested by PacifiCorp is not in the public interest under any scenario. Adoption of the

PacifiCorp allocation proposal would be a break from past established regulatory policy, would

establish terrible regulatory precedent and would transfer value from customers to shareholders

4 illogically. We can do without this "benefit".

II. The Environment

We think it is altogether fitting to consider the environmental history and future of

Centralia in determining the disposition of the plant in a way that serves the public interest. While
the ownership of the plant would transfer to a Canadian corporation, the plant itself, of course,
stays here in the Northwest and with it stays its environmental impact.

Centralia has been called the largest single source of air pollution in the Northwest. It emits enormous amounts of carbon dioxide, nitrogen oxides, and sulfur dioxide. The sale of the plant creates an opportunity for PacifiCorp and its customers to buy replacement power from cleaner, less polluting sources.

We think it is appropriate to dedicate a reasonable portion of customers' net proceeds from the sale of Centralia to buy down the cost, if necessary, of cleaner replacement power. The testimony of Nancy Hirsh of the NW Energy Coalition discusses such a proposal. We are not prepared at this time to suggest how much of the net proceeds should be dedicated toward cleaner replacement power, but we do think that this is an appropriate topic for settlement discussions and a proper subject of consideration for the Commission.