

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

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RE: IN THE MATTER OF ADVICE) LETTER NO. 1672-ELECTRIC FILED BY) PUBLIC SERVICE COMPANY OF) COLORADO TO REVISE ITS COLORADO) PUC NO. 7-ELECTRIC TARIFF TO) IMPLEMENT A GENERAL RATE) SCHEDULE ADJUSTMENT AND OTHER) OTHER CHANGES EFFECTIVE) JULY 18, 2014.)	PROCEEDING NO. 14AL-0660E
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IN THE MATTER OF THE APPLICATION OF) PUBLIC SERVICE COMPANY OF) COLORADO FOR APPROVAL OF ITS) ARAPAHOE DECOMMISSIONING AND) DISMANTLING PLAN.)	PROCEEDING NO. 14A-0680E
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REBUTTAL TESTIMONY OF JEFFREY T. KOPP

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

December 17, 2014

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

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ARAPAHOE DECOMMISSIONING AND)	
DISMANTLING PLAN.)	

SUMMARY OF REBUTTAL TESTIMONY OF JEFFREY T. KOPP

Mr. Jeffrey T. Kopp, a manager in the Business Consulting Department of the Business & Technology Services Division of Burns & McDonnell Engineering Company, Inc. ("Burns & McDonnell"), provided Direct Testimony and an Attachment in this case on behalf of Public Service Company of Colorado ("Public Service" or the "Company") as part of the Company's original filing on June 17, 2014. Mr. Kopp sponsored and provided support for the Decommissioning Cost Study performed by Burns & McDonnell reflecting the estimated decommissioning costs for the Company's fleet of power plants that served as the basis for the net salvage amounts used in the development of the Company's proposed depreciation rates in this proceeding.

The purpose of Mr. Kopp's Rebuttal Testimony is to address the recommendations made regarding the decommissioning costs in the Answer Testimonies of Mr. Chris Neil, on behalf of the Office of Consumer Counsel ("OCC"), and Mr. Jacob Pous, on behalf of Colorado Energy Consumers and Federal Executive Agencies ("CEC/FEA"). Mr. Neil and Mr. Pous provide several recommendations for applying reductions to the decommissioning costs prepared by Burns & McDonnell.

Mr. Neil's recommendations are based on his claim that the decommissioning costs are speculative and inconsistent. However, Mr. Neil's evaluation of the inconsistencies is based on incorrect calculations and comparisons. Mr. Kopp corrects those calculations to demonstrate that the decommissioning cost estimates developed by Burns & McDonnell in the Decommissioning Cost Study are consistent across the various Public Service plants.

Mr. Pous raises a number of issues in his Answer Testimony. First, Mr. Pous refers to a few instances around the country where decommissioning costs that were actually incurred varied significantly from the original decommissioning cost estimates. Mr. Pous provides very little information regarding the facts of those cases and fails to correlate in any way the facts surrounding those instances with the plants analyzed in the Decommissioning Cost Study prepared by Burns & McDonnell for Public Service. Therefore, these instances are not relevant to this case, and should not bear in any way on the reasonableness of the estimates presented in the Decommissioning Cost Study, which were based on known facts and reasonable methods. Mr. Pous also identifies what he believes are inconsistencies between the Decommissioning Cost Study in this case and other Burns & McDonnell studies; however, his analysis of these alleged

inconsistencies reflect an incorrect evaluation of the costs provided. Lastly, Mr. Pous provides several critiques of the methodology and assumptions upon which the estimated decommissioning costs were developed, with several of these critiques being incorrectly applied. Based on these critiques, Mr. Pous suggests large and unsupported reductions to the decommissioning cost estimates. Mr. Pous' suggestions are not only filled with mischaracterizations of the Burns & McDonnell Study and underlying calculations, but include suggestions that are in direct conflict with testimony he has provided in other cases.

In reviewing the Answer Testimony of Mr. Neil and Mr. Pous, Mr. Kopp finds no merit in their recommendations for reducing the estimated decommissioning costs provided under the Burns & McDonnell Study. In this Rebuttal Testimony, Mr. Kopp addresses each of the items raised by Mr. Neil and Mr. Pous and provides the reasons that none of these recommendations have any merit and, therefore, should be adopted.

Mr. Kopp recommends that the Commission find that the results of the Decommissioning Cost Study presented at Attachment No. JTK-1 to his Direct Testimony are reasonable and appropriate for use as the basis for the cost of removal estimates in the development of depreciation rates for Public Service's electric generating plants.

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REBUTTAL TESTIMONY OF JEFFREY T. KOPP

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym/Defined Term</u>	<u>Meaning</u>
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CAD	Computer Aided Design
CEC/FEA	Colorado Energy Consumers and Federal Executive Agencies
Commission or CPUC	Colorado Public Utilities Commission
FAS	Financial Accounting Standard
GE	General Electric
LVI	LVI Environment Services, Inc.
OCC	Office of Consumer Counsel
PEC	Progress Energy Carolinas
Public Service or Company	Public Service Company of Colorado
RFP	Request for Proposals
Staff	Staff of the Colorado Public Utilities Commission
TLG	TLG Services, Inc.
XES or Xcel	Xcel Energy Services Inc.

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REBUTTAL TESTIMONY OF JEFFREY T. KOPP

**I. INTRODUCTION, QUALIFICATIONS, PURPOSE OF TESTIMONY, AND
RECOMMENDATIONS**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Jeffrey (Jeff) T. Kopp. My business address is Burns & McDonnell
3 Engineering Company, Inc., 9400 Ward Parkway, Kansas City, Missouri, 64114.

4 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY AND ATTACHMENTS IN**
5 **THIS PROCEEDING?**

6 A. Yes. I submitted Direct Testimony and an Attachment in this case on behalf of
7 Public Service Company of Colorado ("Public Service" or the "Company") as part
8 of the Company's original filing on June 17, 2014. In my Direct Testimony, I
9 sponsored and provided support for the Decommissioning Cost Study performed

1 by Burns & McDonnell Engineering Company, Inc. ("Burns & McDonnell")
2 reflecting the estimated decommissioning costs for the Company's fleet of power
3 plants that served as the basis for the net salvage amounts used in the
4 development of the Company's proposed depreciation rates in this proceeding.

5 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

6 A. The purpose of my rebuttal testimony is to address the recommendations made
7 regarding the decommissioning costs in the Answer Testimonies of Mr. Chris
8 Neil, on behalf of the Office of Consumer Counsel ("OCC"), and Mr. Jacob Pous,
9 on behalf of Colorado Energy Consumers and Federal Executive Agencies
10 ("CEC/FEA").

11 **Q. ARE YOU SPONSORING ANY ATTACHMENTS AS PART OF YOUR**
12 **REBUTTAL TESTIMONY?**

13 A. No.

14 **Q. WHAT RECOMMENDATIONS ARE YOU MAKING IN YOUR TESTIMONY?**

15 A. I recommend that the Commission find that the results of the Decommissioning
16 Cost Study presented in my Direct Testimony are reasonable and appropriate for
17 use as the basis for the cost of removal estimates in the development of
18 depreciation rates for Public Service's electric generating plants.

II. REBUTTAL TO ANSWER TESTIMONY OF OCC WITNESS
MR. CHRIS NEIL

Q. WHAT ARE MR. NEIL’S ISSUES WITH THE RESULTS OF THE 2014 BURNS & McDONNELL DECOMMISSIONING COST STUDY?

A. Mr. Neil states that the decommissioning cost estimates have varied over the years through the different studies performed and, therefore, the cost estimates reflected in the Burns & McDonnell Study presented in this case are “speculative.” I cannot speak to the estimates performed by other engineering consulting firms in prior Public Service rate cases, but I can explain the current estimates prepared by Burns & McDonnell and the reasons that they are reasonable and well-supported.

Mr. Neil also argues that the estimated decommissioning costs vary across the sites on a dollar-per-megawatt basis, but in doing so he incorrectly combines the structural demolition costs with the environmental costs for pond, coal area, and landfill closure and compares these total costs on a dollar-per-megawatt basis. This mixing of different types of decommissioning costs incorrectly gives the impression that the costs are not consistent across the units.

Based on these two reasons, Mr. Neil recommends that the decommissioning costs from the 2014 Burns & McDonnell Study not be adopted by the Commission in this proceeding.

Q. WHAT IS YOUR UNDERSTANDING OF MR. NEIL’S CRITIQUE THAT THE DECOMMISSIONING COST ESTIMATES ARE “SPECULATIVE”?

A. It is not speculative that electric generating plants will be decommissioned after they are retired. It is also not speculative that costs will be incurred by public

1 utilities in decommissioning these plants. Thus, it seems Mr. Neil is challenging
2 the basic concept that estimated decommissioning costs should be factored into
3 the calculation of net salvage and recovered through depreciation expense.
4 Company witness Ms. Perkett addresses Mr. Neil's "speculative"
5 recommendation within the ratemaking context and the general notion that
6 decommissioning cost estimates are too speculative to be accounted for in
7 depreciation rates. The purpose of the Decommissioning Cost Study performed
8 by Burns & McDonnell was to reduce, as reasonably as possible, the uncertainty
9 – or speculative nature -- associated with the amount of the decommissioning
10 costs that will be incurred. Accordingly, I will address why the Burns &
11 McDonnell Study effectively accomplishes this.

12 **Q. ON WHAT BASIS DOES MR. NEIL CLAIM THAT THE COST ESTIMATES IN**
13 **THE 2014 DECOMMISSIONING COST STUDY ARE SPECULATIVE?**

14 A. Mr. Neil claims that the dismantling cost studies performed by TLG Services, Inc.
15 ("TLG") that were used to support the Company's depreciation proposals in its
16 2009 and 2011 rate cases in Proceeding Nos. 09AL-299E and 11AL-947E,
17 respectively, were speculative and unreasonable. But he then uses the results of
18 these very same studies as the measuring stick to assess whether Burns &
19 McDonnell's estimated costs are reasonable and appropriate.

20 **Q. IS THIS A MEANINGFUL WAY TO ASSESS THE REASONABLENESS OF**
21 **THE RESULTS OF THE BURNS & McDONNELL STUDY?**

22 A. No, I do not believe this is a valid basis for criticizing our current estimates.
23 Rather, the specific methodology, assumptions, and approach of the Burns &

McDonnell study should be used to determine if the current estimates are appropriate. Burns & McDonnell visited each of the sites, walked down each facility, and obtained a significant number of plant drawings and data to use as the basis of developing cost estimates. Further, Burns & McDonnell retained the services of a demolition contractor as a sub consultant on the study to provide additional insight into the demolition costs. Appropriate diligence was performed in developing and reviewing assumptions and costs to develop a robust set of cost estimates for each of the sites. The cost estimates for a subset of the plants were developed by Burns & McDonnell on a dollar-per-megawatt basis, consistent with the terms of the request for proposals ("RFP") and contractual work scope developed by Public Service for the decommissioning study performed for this case. This RFP was developed by Public Service based on a set of principles for developing decommissioning cost estimates that had been agreed upon between the Staff and Public Service. Burns & McDonnell proposed an enhancement to the methodology for developing the dollar-per-megawatt costs to further refine the precision of the estimates. This enhancement included developing the environmental costs for pond, coal area, and landfill closure separately from structural demolition costs, and estimating those environmental costs on a dollar-per-square-foot basis, rather than a dollar-per-megawatt basis. This is a superior method for estimating these costs, since the costs will be driven by the physical size of these plant features, rather than the MW rating of the power generating facilities with which they are associated. The resulting cost estimates not only meet the principles agreed to between the

Staff and Public Service for developing reasonable cost-per-kW values, but actually exceed the standard set by these principles by providing a greater level of cost accuracy.

Q. PLEASE EXPLAIN WHY COMBINING THE STRUCTURAL DEMOLITION COSTS WITH THE ENVIRONMENTAL COSTS FOR POND, COAL AREA, AND LANDFILL CLOSURE INCORRECTLY GIVES THE IMPRESSION THAT COSTS ARE NOT CONSISTENT ACROSS THE UNITS.

A. This was explained in detail in the Company's response to Discovery Request OCC21-4. In that discovery request, the OCC included a table similar to Table CN-2 on page 8 of Mr. Neil's Answer Testimony that calculated 2014 decommissioning costs per-megawatt on a total plant basis.

The costs presented in Table CN-2 are inclusive of structural demolition of each of the powerblocks, fuel handling facilities, and common facilities, as well as environmental costs for pond, coal area, and landfill closure. Structural demolition of the powerblocks can generally be compared on a dollar-per-megawatt basis. However, dollar-per-megawatt figures for the costs for closure of ponds, coal areas, and landfills are not meaningful. Dollar-per-square-foot figures are more applicable for ponds, coal areas, and landfill closure costs, since the cost of closure will be related to the physical size of these features, and the physical size can vary greatly across individual plants regardless of the MW rating. Combining structural demolition costs of the powerblocks, fuel handling facilities, and common facilities together with the environmental costs for pond, coal area, and landfill closure, as was done in Mr. Neil's Table CN-2, results in

unreliable dollar-per-megawatt figures for the plants. These numbers should not be used as the basis for any meaningful analysis.

Q. HAVE YOU PREPARED A TABLE THAT PROVIDES A MORE ACCURATE COMPARISON OF DECOMMISSIONING COSTS PER-MW ACROSS PUBLIC SERVICE'S COAL-FIRED GENERATING UNITS?

A. Yes. The costs presented in Table 1 below have been broken out on a per-unit basis for powerblock structural demolition to more accurately represent the dollar-per-megawatt costs on a comparable basis. The other rows labeled with "common", "sync cond", or "coal handling" reflect the other demolition costs as described above. As can be seen in this table, the costs on a dollar-per-megawatt basis for the units are relatively consistent, taking into account applicable differences between the units. In general, this data shows that powerblock demolition costs tend to fall in the \$30,000 to \$70,000 per-megawatt range for most units. Units that have no or little asbestos fall below this range, as asbestos removal costs either have already been incurred or are not applicable because the unit was constructed with asbestos-free materials. Contrary to Mr. Neil's conclusion, which was based on his invalid calculations, the treatment of asbestos among generating units is indeed consistent and rational. Cherokee Units 1 and 2 dollar-per-megawatt costs are outliers, since the boilers for those units have already been removed. Larger units, such as Comanche 3, Craig Units 1 and 2, and Pawnee 1 also benefit from the economies of scale.

Table 1 – Unit Dollar per Megawatt Costs

Asset	Decommissioning Costs	Credits	Net Project Cost	Capacity (MW)	Net Decommissioning Cost per MW
Arapahoe 1	\$ 3,675,000	\$ (987,000)	\$ 3,675,000	42	\$ 86,400
Arapahoe 2	\$ 3,748,000	\$ (704,000)	\$ 2,642,000	42	\$ 62,180
Arapahoe 3	\$ 3,780,000	\$ (704,000)	\$ 3,076,000	42	\$ 67,911
Arapahoe 4	\$ 4,672,000	\$ (1,808,000)	\$ 3,368,000	111	\$ 30,324
Arapahoe Common	\$ 6,625,000	\$ (76,000)	\$ 6,749,000		N/A
Arapahoe Coal Handling	\$ 3,635,000	\$ (22,000)	\$ 3,610,000		N/A
Total			\$ 24,891,000		N/A
Cherokee 1	\$ 1,720,000	\$ (676,000)	\$ 1,042,000	107	\$ 9,736
Cherokee 2	\$ 1,368,000	\$ (555,000)	\$ 813,000	107	\$ 7,598
Cherokee 3	\$ 10,373,000	\$ (1,650,000)	\$ 8,414,000	151	\$ 55,722
Cherokee 4	\$ 12,321,000	\$ (4,314,000)	\$ 11,007,000	330	\$ 33,357
Cherokee Syno Cond	\$ 205,000	\$ (82,000)	\$ 119,000		N/A
Cherokee Common	\$ 7,349,000	\$ (124,000)	\$ 7,227,000		N/A
Cherokee Coal Handling	\$ 5,431,000	\$ (50,000)	\$ 5,381,000		N/A
Total			\$ 32,695,000		N/A
Comanche 1	\$ 5,489,000	\$ (4,314,000)	\$ 1,177,000	330	\$ 15,821
Comanche 2	\$ 5,489,000	\$ (4,314,000)	\$ 1,177,000	330	\$ 15,821
Comanche 3	\$ 16,580,000	\$ (5,214,000)	\$ 6,368,000	625	\$ 10,104
Comanche Common	\$ 26,169,000	\$ -	\$ 26,169,000		N/A
Total			\$ 44,891,000		N/A
Craig 1	\$ 11,722,000	\$ (2,592,000)	\$ 9,027,000	425	\$ 12,646
Craig 2	\$ 11,722,000	\$ (2,592,000)	\$ 9,027,000	425	\$ 12,646
Craig Common	\$ 47,399,000		\$ 47,399,000		N/A
Total			\$ 59,273,000		N/A
Hayden 1	\$ 10,312,000	\$ (2,367,000)	\$ 7,925,000	164	\$ 42,071
Hayden 2	\$ 11,563,000	\$ (3,425,000)	\$ 8,158,000	202	\$ 31,137
Hayden Common	\$ 17,439,000		\$ 17,439,000		N/A
Total			\$ 32,522,000		N/A
Pawnee 1	\$ 12,025,000	\$ (2,611,000)	\$ 9,247,000	202	\$ 12,370
Pawnee Common	\$ 44,649,000		\$ 44,649,000		N/A
Total			\$ 51,099,000		N/A
Valmont 2	\$ 9,393,000	\$ (2,482,000)	\$ 6,911,000	169	\$ 38,616
Valmont 1 - 4 and Common	\$ 16,340,000	\$ (1,487,000)	\$ 14,843,000		N/A
Total	\$ 25,643,000	\$ (3,969,000)	\$ 21,674,000		N/A

Notes:

- ①: Sellers already removed, minimal asbestos remaining
- ⓧ: Minimal asbestos remaining
- ⓧ: No asbestos

Contrary to Mr. Neil's conclusions at page 9, lines 3-10, the cost per MW for Pawnee powerblock structural demolition is actually on the low end of the cost range. This is due to the fact that it benefits from economies of scale from being a larger unit, and has no asbestos. Overall, the Pawnee plant decommissioning costs are driven up by the pond, coal area, and landfill closure costs, included in the Pawnee common costs in Table 1 above. The cost per-MW for Comanche Units 1, 2, and 3 powerblock structural demolition is on the low end of the cost range. This is due to the fact that these units benefit from economies of scale, particularly Unit 3. Units 1 and 2 have little asbestos remaining and Unit 3 has no asbestos. Overall, Comanche costs remain on the low end of the range due to the fact that the pond, coal area, and landfill closure costs are relatively low as well. The estimated pond, coal area, and landfill closure costs are broken out in Appendix B of the Burns & McDonnell Decommissioning Cost Study (Attachment No. JTK-1). The basis of the pond, coal, area and landfill closure costs is outlined in Appendix F of the Study.

Q. ARE YOU ADDRESSING MR. NEIL'S OTHER CONCERNS REGARDING THE EXCLUSION OF THE VALUE OF WATER RIGHTS IN DEVELOPING THE DECOMMISSIONING COSTS FOR HYDRO UNITS?

A. No, assigning values for the potential sale of water rights was outside of the scope of the Decommissioning Cost Study. Ms. Perkett addresses the appropriateness of including the potential sale of water rights and land as part of net salvage in her Rebuttal Testimony.

III. REBUTTAL TO ANSWER TESTIMONY OF CEC/FEA WITNESS
MR. JACOB POUS

1 **Q. WHAT ISSUES DOES CEC/FEA WITNESS MR. POUS HAVE WITH THE**
2 **RESULTS OF THE DECOMMISSIONING COST STUDY?**

3 A. In Answer Testimony, Mr. Pous claims that the estimated decommissioning costs
4 reflected in the Burns & McDonnell Study are unreasonably high. Mr. Pous
5 provides no meaningful analysis of the site-specific cost estimates prepared by
6 Burns & McDonnell or the demolition contractor, LVI Environment Services, Inc.
7 ("LVI"), which served as a sub-consultant for the Decommissioning Cost Study,
8 to assist with the development of the direct costs.

9 He claims that insufficient detail has been provided in order for him to
10 evaluate the cost estimates prepared by Burns & McDonnell, even though the
11 cost estimate spreadsheets, with all formulae and calculations intact, were
12 provided. Instead, Mr. Pous provides anecdotal evidence from a few selected
13 instances for facilities located in other states where estimates were prepared by
14 other firms and for which no information is provided regarding the drivers for
15 differences in prices. As explained below, these instances are not relevant to
16 this case, and should therefore not be considered.

17 Mr. Pous also identifies what he believes are inconsistencies between the
18 Decommissioning Cost Study submitted in this case and other Burns &
19 McDonnell studies, with some of his analysis of these inconsistencies being an
20 incorrect evaluation of the costs provided.

21 Lastly, Mr. Pous provides several critiques of the study methodology and
22 assumptions employed, with several of these critiques being incorrectly applied.

1 Based on this, Mr. Pous recommends large reductions to the decommissioning
2 cost estimates. His recommendations are unreasonable.

3 **Q. ON WHAT BASIS DOES MR. POUS CLAIM THAT INSUFFICIENT DETAIL ON**
4 **THE BURNS & McDONNELL COST ESTIMATES WAS PROVIDED?**

5 A. At page 13, line 17, through page 14, line 9, of his Answer Testimony, Mr. Pous
6 claims that he was unable to evaluate the costs estimates prepared by Burns &
7 McDonnell because they lacked base labor rates along with labor adders by crew
8 member and crew composition. This is the only information that Mr. Pous claims
9 was not provided and that he claims deprives the Commission of being able to
10 test labor rates. In fact, as stated in the Company's responses to Discovery
11 Request Nos. CEC9-32 and CEC9-33 (see pages 22-23 of Attachment No.
12 JP-4), Burns & McDonnell provided the total labor hours for each activity and the
13 average labor rates. Specifically, the Company provided the fully loaded average
14 hourly rate for the demolition crews engaged in the decommissioning activities,
15 as provided by LVI. In addition, the Company provided in workpapers the fully
16 loaded average hourly rates for the environmental remediation activities as
17 developed by Burns & McDonnell.

18 **Q. ARE BASE LABOR RATES BY INDIVIDUAL LABORER NECESSARY TO**
19 **ASSESS THE REASONABLENESS OF THE COST ESTIMATES?**

20 A. No. Contrary to Mr. Pous' claim, the fully loaded costs in the estimates provide
21 meaningful data that can be tested. The underlying direct labor costs incurred by
22 LVI, along with LVI's labor burden costs, overhead, and profit would be used to
23 develop the fully burdened labor costs that they would charge for demolition

1 activities. The breakdown between LVI's direct labor costs, burdens, overhead,
2 and profit are not critical to the total costs its customers would pay, and will vary
3 across demolition contractors. The critical component is the fully burdened labor
4 cost, as that is what will be charged to the plant owner for the associated labor
5 activities. Mr. Pous provides no analysis of the fully burdened labor rates, even
6 though they were provided.

7 **Q. DOES MR. POUS IDENTIFY OTHER DETAILED INFORMATION HE CLAIMS**
8 **WAS NOT AVAILABLE FOR HIM TO PERFORM A MEANINGFUL**
9 **ANALYSIS?**

10 A. Mr. Pous goes on to explain at page 13, line 6 through line 14, of his Answer
11 Testimony, that other critical factors are necessary, such as type of demolition,
12 quantity of materials removed, depth of removal, size of the scrap material,
13 equipment and material costs, scheduling, overheads, and contingencies.
14 Although each of these items were provided either in the Burns & McDonnell
15 Study report or in spreadsheet format in workpapers, Mr. Pous provides no
16 analysis of these components, other than commentary later in his Answer
17 Testimony (page 26, line 13, through page 27 line 2) that he believes the
18 contingency level to be too high.

1 **Q. HOW DO YOU RESPOND TO THE SUGGESTION AT PAGE 14, LINES 10-12**
2 **OF MR. POUS' ANSWER TESTIMONY THAT BURNS & McDONNELL**
3 **BLINDLY RELIED UPON COST ESTIMATES FROM A DEMOLITION**
4 **CONTRACTOR?**

5 **A.** First, it should be understood that there are many different methods for
6 developing cost estimates. I will discuss two common methods and how they
7 apply to this case.

8 One method of developing costs routinely used by engineering firms
9 includes developing all costs in house. Those costs can be estimated using fully
10 burdened labor rates multiplied by labor hours. In addition, unit pricing for
11 materials multiplied by material quantities would be included along with any
12 equipment rental costs. These costs would be developed using in-house data
13 and publicly available data to build up the individual cost components.

14 A second method commonly used by engineering firms is to obtain
15 budgetary pricing for components of the cost estimate from individual vendors.
16 Any costs not obtained from vendors would be developed internally by the
17 engineering firm. This method is typically employed when a higher level of
18 accuracy in the cost estimates is desired. In these cases, Burns & McDonnell
19 would not receive all of the underlying details of the vendor costs. For example,
20 Burns & McDonnell may obtain pricing from General Electric ("GE") for a
21 combustion turbine, but would not receive all the details of GE's direct labor
22 costs, etc.; it just receives the all-in cost of the turbine. Burns & McDonnell may
23 obtain budgetary pricing from other vendors for components of a construction

1 project that would typically be assigned to a subcontractor, and again would not
2 receive underlying details of the vendor's direct labor costs, etc. That does not
3 mean that these cost components cannot be tested or are blindly relied upon. In
4 these instances, Burns & McDonnell would obtain these costs from reputable
5 vendors, who routinely provide competitive bids, and would be evaluated by our
6 engineers for reasonableness.

7 The second method outlined above was employed by Burns & McDonnell
8 in development of the Public Service decommissioning costs. This method was
9 selected because it results in more accurate cost estimates. LVI was retained to
10 provide the budgetary pricing for portions of the decommissioning scope,
11 because they are a reputable demolition contractor with which Burns &
12 McDonnell has experience, and Burns & McDonnell has reviewed their
13 competitive bids on other projects. That being said, Burns & McDonnell still did
14 not blindly rely on LVI's costs. Burns & McDonnell requested that LVI provide
15 sufficient detail in their budgetary pricing for Burns & McDonnell to review and
16 determine whether costs were reasonable. This detail included the average fully
17 burdened labor rate. In addition, for each component demolished in the
18 categories provided in the cost estimate spreadsheet, Burns & McDonnell
19 requested and received from LVI the labor hours, concrete quantities, unit pricing
20 for concrete crushing and reuse, debris quantities, unit pricing for debris disposal
21 costs, demolition equipment rental costs, scrap metal quantities, and scrap metal
22 unit pricing. All of this information was made available to all parties and Mr. Pous

1 for review. However, Mr. Pous does not mention that he reviewed or did
2 anything with any of this information in his testimony.

3 Mr. Pous' testimony suggests that any cost estimate that does not include
4 details on base labor rates along with labor adders by crew member and crew
5 composition cannot be tested, which is simply not an accurate statement. Rather
6 than review all the detail that was provided for his review, Mr. Pous focuses on
7 the few details he was not provided, and then summarily dismisses the entire
8 estimates. Rather than provide meaningful analyses of all the detailed
9 information provided and used in developing the Burns & McDonnell cost
10 estimates, Mr. Pous provides some anecdotal evidence from other unrelated
11 cases.

12 **Q. WHAT ANECDOTAL EVIDENCE DOES MR. POUS SUGGEST BE**
13 **CONSIDERED BY THE COMMISSION AND HOW DOES IT RELATE TO THIS**
14 **PROCEEDING?**

15 A. Mr. Pous references three examples from elsewhere in the country where
16 decommissioning costs varied significantly from the original estimates. The first
17 example he cites, at page 14, lines 14-16, of his Answer Testimony is a case in
18 which Austin Energy accepted a \$24.9 million bid from a demolition contractor to
19 decommission a 500MW generating station, but when the bidding was reopened
20 six months later, the same demolition contractor won the bid, but at a much lower
21 level of \$11.5 million. Mr. Pous provides no additional information as to what
22 occurred during that six-month period that resulted in the change to the
23 contractor's bid. There are numerous reasons that cost estimates and bids can

1 vary. This includes differences in scope (e.g., change to level of
2 decommissioning, change in quantity of identified regulated materials, change in
3 decommissioning methodology, etc.), change in scrap prices, change in market
4 prices for labor and equipment, or any combination thereof. Without additional
5 information on the drivers of the differences in the costs, the cost differences
6 themselves provide no meaningful information.

7 The second example he cites, at page 15, lines 1-9, of his Answer
8 Testimony, is a case where a “major competitor” of Burns & McDonnell
9 performed a decommissioning cost study for Nevada Power Company (“Nevada
10 Power”), but when Nevada Power went out for competitive bids for demolition of
11 one of its plants, the final actual cost came in at about 25% of the level
12 estimated.” Mr. Pous himself has previously explained the reason for the cost
13 differential in the Nevada Power matter in testimony submitted in Florida Public
14 Service Commission Docket No. 090079-EI. In that testimony, Mr. Pous stated:

15 The engineering estimator projected the cost of performing a
16 reverse construction approach for generating facilities.
17 Shortly thereafter, Nevada Power Company actually entered
18 into a contract with a demolition firm to demolish the plant.
19 The contractor employed explosive demolition and controlled
20 topping of the facilities rather than the reverse construction
21 approach. The cost differential between the engineering
22 firm’s cost estimate based on a reverse construction
23 approach and the actual demolition based on explosive
24 charges and toppling the facility to the ground was about 30
25 cents on the dollar.

26 As Mr. Pous explains, the reason for the cost differential between that engineer’s
27 estimate and the actual demolition as resulting from a difference in
28 decommissioning methodology. As outlined on pages 20 and 21 of 98 of
29 Decommissioning Cost Study in Attachment No. JTK-1, Burns & McDonnell used

1 the less costly demolition techniques of using explosive charges and toppling the
2 facilities to the ground in developing the decommissioning estimates for the
3 Public Service facilities. Therefore, the Nevada Power example actually serves
4 to reinforce the appropriate and reasonable nature of the Burns & McDonnell
5 estimated costs.

6 The last example Mr. Pous cites, at page 24, lines 6-15, of his Answer
7 Testimony was the King Power Plant in Ft. Pierce, Florida. That plant was
8 demolished for negative cost, even though the original cost was estimated to be
9 a positive cost. Again, Mr. Pous provides no additional information as to the time
10 that passed between the original estimate and the demolition bids and any other
11 relevant information that may have resulted in the difference between the prices.
12 As with the Nevada Power example, Mr. Pous also discussed this case in his
13 direct testimony in Florida Public Service Commission Docket No. 090079-EI.
14 Per his testimony in that case, "At the time of the Fort Pierce transaction, scrap
15 metal prices had reached their all time high." Scrap metal prices have fallen
16 since that time, so this example is not a reasonable example to use for
17 comparison to the current decommissioning cost estimates for the Public Service
18 facilities. Additionally, it is Burns & McDonnell's understanding that the
19 demolition contractor's bid excluded environmental remediation of the site, which
20 was to be completed after dismantlement of the equipment.

21 **Q. DO THESE EXAMPLES HAVE MUCH RELEVANCE TO THIS CASE?**

22 A. No. In addition to the distinguishing circumstances identified above, these are all
23 cases in which the cost estimates were prepared by someone other than Burns &

1 McDonnell or LVI. Further, Mr. Pous provides no indication that the facts
2 surrounding these few instances are in any way similar or related to the facts
3 surrounding Burns & McDonnell's Study of the Public Service units. The one
4 exception is the Nevada Power case and Mr. Pous' prior testimony in the state of
5 Florida, which actually demonstrates that Burns & McDonnell's costs are more in
6 line with the explosive toppling demolition methods that result in costs in line with
7 Mr. Pous' expectations.

8 **Q. WHAT INCONSISTENCIES BETWEEN THIS STUDY AND OTHER BURNS &**
9 **McDONNELL STUDIES DOES MR. POUS IDENTIFY AND HOW IS HIS**
10 **EVALUATION OF THESE INCONSISTENCIES INCORRECT?**

11 A. At pages 16-19 of his Answer Testimony, Mr. Pous compares the
12 decommissioning costs for Cherokee Unit 4 in the Study to the decommissioning
13 cost for Roxboro Unit 1 prepared by Burns & McDonnell for Progress Energy
14 Carolinas ("PEC") as part of a study prepared in 2012. That study was submitted
15 as part of rate proceeding filed by PEC, and therefore became a public
16 document.

17 As Mr. Pous points out, there are several scope differences between the
18 two decommissioning cost estimates. One scope difference is the level of
19 foundation removal used as the basis for each study. All of the Public Service
20 units are based on demolition to three feet below grade, consistent with previous
21 decommissioning costs prepared for Public Service. All of the PEC cost
22 estimates were based on the units being demolished to grade, with no foundation
23 removal. This scope difference results in a cost differential between the two

1 studies. Additionally, the facilities have different characteristics due to their
2 location and design, which drive cost differentials. Cherokee Unit 4 is enclosed
3 in a building, due its cold weather location. Roxboro Unit 1 was designed and
4 constructed as an outdoor unit, with no building, due to the warmer climate in
5 which it is located. This results in more demolition labor, and more resulting
6 demolition debris for the Cherokee unit than the Roxboro unit. Therefore, most
7 of the decommissioning cost differentials are attributable to differences in plant
8 characteristics and the scope of decommissioning work. Mr. Pous has compared
9 dissimilar units with dissimilar decommissioning scopes, and as reasonably
10 expected, their costs vary from one another.

11 Mr. Pous additionally points out a few other differences in scope between
12 the decommissioning costs developed for the Public Service Study and the PEC
13 study. The basis of decommissioning costs can vary by client, facility, location,
14 and regulatory requirements. The scope of decommissioning for this Pubic
15 Service Study was developed based on our discussions with Public Service, and
16 Public Service's interaction with the Staff, as I have noted previously.

17 Mr. Pous claims at page 17, lines 19-20, that in regard to the asbestos
18 removal costs for Cherokee Unit 4, "it would be mathematically unrealistic for the
19 asbestos removal cost to be over eight times the level compared to the larger
20 Roxboro unit." However, the basis of the PEC study was that only 10 percent of
21 the asbestos remained on the Roxboro Unit 1 boiler, which is the largest
22 component, and 40 percent of the asbestos remained on the steam turbine and
23 piping. The basis of the Public Service Study is that 100 percent of the asbestos

remains on Cherokee Unit 4. If the units were the exact same size, it would be reasonable to assume that the Cherokee Unit 4 asbestos removal cost would be nearly 10 times greater than the Roxboro Unit 1 asbestos removal cost. Additionally, the costs would need to be adjusted to account for the fact that Cherokee Unit 4 has an approximately 25 percent lower megawatt rating. Accordingly, the Cherokee Unit 4 asbestos removal cost would be anticipated to be in the range of 7.5 times greater than that of Roxboro Unit 1. In addition, the Cherokee plant is housed in a building constructed with asbestos-containing materials used as building siding, where the Roxboro plant is an outdoor installation with no building, therefore no asbestos siding. These costs are included in the asbestos removal costs for each of the units at the Cherokee plant. Therefore, not only is it realistic that the Cherokee Unit 4 value is eight times the level of the larger Roxboro unit mathematically, it demonstrates that the asbestos removal cost for the selected units are applied in a consistent manner, contrary to Mr. Pous' contention.

Q. WHAT OTHER CRITIQUES OF THE BURNS & McDONNELL STUDY DOES MR. POUS OFFER?

A. Mr. Pous provides the following additional critiques of the Burns & McDonnell Study:

- Burns & McDonnell assumes the worst-case demolition and site restoration scenario.
- Burns & McDonnell assumes that none of the equipment at any plant will have a value other than scrap value.
- Burns & McDonnell fails to recognize reasonable prices for scrap material.
- Burns & McDonnell fails to recognize all types of available scrap metals.

- 1 • Burns & McDonnell fails to recognize contingencies on scrap values.
- 2 • Burns & McDonnell estimates a level for indirect costs three times the
- 3 level estimated for PEC.
- 4 • The estimates include a 20 percent contingency factor for costs without
- 5 consideration of offsetting contingency possibilities.
- 6 • Burns & McDonnell does not include any offset for the sale or reuse value
- 7 of the site in spite of including substantial amounts to improve the site for
- 8 future use or sale.
- 9 • Burns & McDonnell fails to recognize any salvage value for valuable water
- 10 rights.
- 11 • Burns & McDonnell fails to recognize that the Company will continue to
- 12 expense some portion of asbestos removal over the remaining life of its
- 13 units, rather than incur all costs at retirement.

14 I will address each of these critiques in the remainder of my testimony.

15 **Q. DO YOU AGREE WITH MR. POUS' CONTENTION THAT BURNS &**
16 **MCDONNELL ASSUMES THE WORST-CASE DEMOLITION AND SITE**
17 **RESTORATION SCENARIO**

18 A. No, I do not. Mr. Pous claims at page 20, lines 8-12, of his Answer Testimony
19 that "[t]he options for treatment of retired generating facilities range from the sale
20 of the facilities without any demolition costs to full reverse construction (i.e., total
21 dismantlement) and site restoration. Burns & McDonnell's presentation is on the
22 end that yields an excessively negative level of net salvage." As stated above,
23 Mr. Pous does not provide a single example of a case in which a facility reached
24 the end of useful life and was sold without any demolition. Additionally, Burns &
25 McDonnell's estimated costs are not on the end of the range that yield an
26 excessively negative level of net salvage, since Burns & McDonnell did not
27 assume full reverse construction. As Mr. Pous testified in Florida Public Service

1 Commission Docket No. 090079-EI, “[t]he cost to pre-cut members, beams,
2 piping, etc., high above the ground and carefully lowering them, rather than
3 blowing the support beams and toppling the facility, produces an excessively
4 high cost estimate.” As outlined on pages 20 and 21 of 98 of the
5 Decommissioning Cost Study (Attachment No. JTK-1), the less costly demolition
6 techniques of using explosive charges and toppling the facilities to the ground
7 were used in developing the decommissioning cost estimates prepared for the
8 Public Service facilities.

9 In the Florida Public Service Commission Docket, Mr. Pous recommended
10 that the decommissioning costs be reduced by 60 percent “based on the
11 approximate relationship experienced by Nevada Power Company between the
12 reverse construction cost estimate approach to demolishing power plants and
13 what an actual demolition contractor charged to tear down the facilities.” Based
14 on Mr. Pous’ testimony in the Florida docket, actual demolition contractor
15 charges based on explosive toppling are anticipated to be in the range of 60
16 percent lower than full reverse construction. The costs in the Burns & McDonnell
17 Study for decommissioning the Public Service facilities are based on explosive
18 toppling costs estimated by a demolition contractor. So, contrary to Mr. Pous’
19 contention that the Burns & McDonnell costs are “on the end that yields an
20 excessively negative level of net salvage,” the Burns & McDonnell
21 decommissioning estimates include significantly lower costs than the end that
22 yields excessively negative level of net salvage, per his own testimony in the
23 Florida docket.

1 **Q. WHAT IS YOUR RESPONSE TO MR. POUS' CRITIQUE THAT BURNS &**
2 **McDONNELL ASSUMES THAT NONE OF THE EQUIPMENT AT ANY PLANT**
3 **WILL HAVE A VALUE OTHER THAN SCRAP VALUE?**

4 A. Mr. Pous asserts at page 11, lines 16-17, of his Answer testimony that "a fair
5 presentation must recognize that some probability exists that not all units will be
6 totally demolished without any asset having a value above scrap value."
7 However, the Burns & McDonnell Study was prepared for retiring the assets at
8 the end of their useful life, at which point the equipment and materials would
9 have no remaining value other than scrap. Although the possibility exists that
10 prices could be either higher or lower than the estimates in the Study, Burns &
11 McDonnell prepared estimates based on the most likely outcome for the sites. It
12 would be inappropriate to base the costs on any other less likely scenario.

13 Mr. Pous cites the City of Traverse, Michigan's Bayside Plant and FP&L's
14 Palatka Plant as two examples of cases where plant equipment had any salvage
15 value other than scrap. In both cases, the plants were fully deconstructed with
16 only a portion of the equipment sold for reuse elsewhere. The cost of
17 deconstruction is more costly than demolition as assumed in the Burns &
18 McDonnell Study, so the increased costs offset a significant portion of the
19 additional proceeds obtained from salvage of equipment, rather than scrap. Mr.
20 Pous does not provide a single example of a plant reaching the end of useful life
21 and anything other than full dismantlement taking place. Mr. Pous provides
22 limited examples of alternate scenarios that provide no indication that the
23 scenarios assumed by Burns & McDonnell are anything but reasonable. Mr.

1 Pous' Attachment JP-1 indicates that he has provided support in over 400
2 regulatory filings, but he only has two examples where anything other than scrap
3 value was recovered and not a single scenario where full deconstruction or
4 demolition was not assumed or did not take place.

5 Mr. Pous also states that the assumption that only scrap value is
6 recovered is in direct conflict with what Burns & McDonnell assumed in its recent
7 decommissioning study for PEC, and quotes item 30 on pages 3-5 of the PEC
8 study. However, Mr. Pous misinterprets this item as stating that something other
9 than scrap was assumed for the spare parts inventory at the PEC facilities. The
10 assumption to which Mr. Pous refers states that "For purposes of this study,
11 Burns & McDonnell has assumed that any spare parts, tools, inventory, or
12 equipment in the buildings will be salvaged or sold for scrap, the value of which
13 has been accounted for in the estimates." The value referred to in regard to
14 spare parts, tools and inventory and accounted for in the estimates was the scrap
15 value of these items.

16 **Q. IS MR. POUS' ASSESSMENT THAT BURNS & McDONNELL FAILS TO**
17 **RECOGNIZE REASONABLE PRICES FOR SCRAP MATERIAL AN**
18 **ACCURATE CHARACTERIZATION OF THE SCRAP PRICES USED IN THE**
19 **STUDY?**

20 A. No, it is not. Mr. Pous claims that the scrap metal prices used in the
21 Decommissioning Cost Study are not appropriate, because Burns & McDonnell
22 used "average" steel prices in Los Angeles and that his review of current steel
23 prices in Los Angeles showed potentially higher prices. There are several issues

1 with his comparison. First, the scrap prices used in the Study were averaged
2 over the month of January 2014; whereas he compares the Study prices to
3 current scrap prices. Scrap is traded on a spot market, so prices are continually
4 changing. Burns & McDonnell selected the January 2014 prices averaged over
5 that month as the representative price for the Study, since all costs in the Study
6 were prepared using January 2014 dollars. The monthly average scrap prices
7 were used, rather than a single spot market price, to remove daily market
8 fluctuations. Additionally, Mr. Pous does not make it clear whether he has made
9 any adjustments to the scrap market prices that he references to account for
10 transportation, as was done in the Study, and as would be done by a demolition
11 contractor in developing credits against plant demolition costs. Lastly, Mr. Pous
12 utilized a different source for obtaining scrap metal prices. Burns & McDonnell
13 and LVI used the American Metal Market prices, which is the industry standard
14 and most accurately represents the scrap prices that demolition contractors
15 would use to establish scrap metal credits in their bids.

16 **Q. MR. POUS STATES THAT BURNS & McDONNELL FAILS TO RECOGNIZE**
17 **ALL TYPES OF AVAILABLE SCRAP METALS. IS THAT ACCURATE?**

18 A. No, it is not. Mr. Pous states at page 24 of his Answer Testimony that Burns &
19 McDonnell did not include an allowance for stainless steel scrap. He is incorrect.
20 The quantity of stainless steel scrap in the facilities is included in the scrap steel
21 quantities. However, the total tons of stainless steel is minor compared to the
22 quantity of carbon steel, and would have a negligible impact on the dollar-per-ton
23 value of total plant scrap steel.

1 **Q. PLEASE COMMENT ON MR. POUS' STATEMENTS THAT THE ESTIMATES**
2 **INCLUDE A 20 PERCENT CONTINGENCY FACTOR FOR COSTS WITHOUT**
3 **CONSIDERATION OF OFFSETTING CONTINGENCY POSSIBILITIES AND**
4 **THAT BURNS & McDONNELL FAILS TO RECOGNIZE CONTINGENCIES ON**
5 **SCRAP VALUES?**

6 **A.** Mr. Pous argues that 20 percent contingency is not reasonable or appropriate.
7 He states that it must be recognized that contingencies can be either positive or
8 negative. I am not aware of a single case where a cost estimate was prepared
9 for any type of construction or decommissioning project and then a negative
10 contingency applied. Mr. Pous has not provided a single example of the
11 application of negative contingency to a cost estimate. Mr. Pous does not
12 provide a single example of a regulatory commission including negative
13 contingency on a decommissioning estimate. This suggestion is out of line with
14 industry practice. Further, at page 26, lines 18-19, of his Answer Testimony, Mr.
15 Pous states that negative contingency could easily be defended in this case,
16 since " Burns & McDonnell's cost estimation process can clearly be characterized
17 as resulting in high-side cost estimates." Once again, this argument is in direct
18 conflict with Mr. Pous' testimony in the Florida docket that actual demolition
19 contractor charges based on explosive toppling are anticipated to be in the range
20 of 60 percent lower than full reverse construction. Mr. Pous' Florida testimony
21 makes it clear that he believes that explosive toppling costs, as estimated in the
22 current Burns & McDonnell Study, will be at least 60 percent lower than reverse
23 construction cost, therefore nowhere near high-side cost estimates.

1 Mr. Pous' statement that Burns & McDonnell fails to recognize
2 contingency on scrap is also not accurate. The contingency included on the
3 direct costs is included to account for any additional costs actually incurred
4 greater than the cost estimates. This includes lower than anticipated scrap
5 quantities or prices.

6 **Q. PLEASE EXPLAIN WHY A 20 PERCENT CONTINGENCY FACTOR IS**
7 **REASONABLE ON THESE DECOMMISSIONING ESTIMATES.**

8 A. As previously stated, we are starting with a reasonable estimate of the
9 decommissioning costs, not a high-end cost estimate; therefore, the application
10 of contingency is not only appropriate, but standard industry practice. Even on a
11 project where firm pricing has been agreed upon with a successful bidder, we
12 would recommend that a client carry at least two to three percent contingency to
13 cover potential change orders. The level of contingency is determined based on
14 the level of risk that the actual project costs will exceed the estimated baseline
15 costs.

16 This risk for costs exceeding the baseline estimate is influenced by
17 several factors, with one of the key factors being the extent to which the project
18 scope has been defined. On a construction project, this would be determined
19 based on the level of design that has been completed, ranging from conceptual
20 design to 100 percent completion of detailed design. These estimates would
21 likely have anywhere from 5 percent contingency to 30 percent contingency
22 applied to them.

1 Scope definition on a decommissioning project is a risk for several
2 reasons. First of all, in comparison to a construction project where the engineer
3 would have Computer Aided Design (“CAD”) files to use to develop quantity
4 takeoffs, decommissioning project estimates are typically based on older hard
5 copy drawings, where actual plant conditions may have changed since the time
6 of construction. Therefore, the quantity of steel and concrete to be demolished
7 and disposed of, as well as the quantity of scrap, may vary from the estimates,
8 resulting in higher net decommissioning costs. Second of all, there is an inherent
9 scope risk in the handling of hazardous materials in that the quantities of
10 hazardous materials may be greater than anticipated if the plant staff has not
11 identified all areas of hazardous materials. Lastly, site restoration costs can vary
12 in that the depth to which soil remediation or other environmental remediation
13 efforts are required is unknown until the on-site testing is performed and
14 remediation activities commence.

15 In general, it is reasonably expected that changes to the scope of
16 decommissioning that would occur at the time of execution of the
17 decommissioning project would result in cost increases, rather than decreases.
18 For example, our cost estimates include minimal levels of environmental
19 remediation, so contingency is required to cover the risk that additional
20 contamination exists. It is unlikely that less than these minimal levels of
21 environmental remediation will be required, but the risk exists that additional
22 remediation is required.

1 In addition, other factors that impact risk include changes to market
2 conditions, weather delays, scrap price changes, etc. The further out in the
3 future that the decommissioning activities will occur, the greater the risk that
4 pricing could exceed the current baseline estimates.

5 In conclusion, a 20 percent contingency on these costs is reasonable and
6 warranted based on the level of risk associated with the decommissioning
7 projects. This percentage has been used on other decommissioning estimates in
8 other regulatory proceedings and has been accepted by other commissions.

9 **Q. CAN YOU EXPLAIN THE DIFFERENCES BETWEEN THE INDIRECT COSTS**
10 **ASSUMED IN THE PEC CASE AND THOSE IN THE DECOMMISSIONING**
11 **COST STUDY IN THIS CASE?**

12 A. As outlined in my Direct Testimony, indirect costs represent the costs incurred by
13 the owners of the facility that are expected during the decommissioning process.
14 These costs can vary by client. Burns & McDonnell worked with Public Service
15 to estimate the appropriate costs for this project based on actual observed costs
16 incurred on the Cameo Station decommissioning project. One notable difference
17 between the PEC indirect costs and the Public Service indirect costs is that the
18 Public Service indirect costs include decommissioning activities prior to
19 demolition, such as removing coal from feeders, conveyors, bunkers, and mills,
20 water washing equipment to remove remaining fines, vacuum cleaning ash
21 hoppers, duct work, boiler, Air Quality Control System, air heaters, etc. On the
22 PEC project, those costs were accounted for elsewhere in their budgeting
23 process.

1 **Q. DID YOU INCLUDE THE VALUE OF LAND IN YOUR DECOMMISSIONING**
2 **COST ESTIMATES?**

3 A. No. Burns & McDonnell's scope specifically excluded the value of land, and was
4 limited to estimating the decommissioning costs. Company witness Ms. Perkett
5 responds to this criticism in her Rebuttal Testimony.

6 **Q. DID YOU INCLUDE THE VALUE OF WATER RIGHTS IN YOUR**
7 **DECOMMISSIONING COST ESTIMATES?**

8 A. No. Burns & McDonnell's scope specifically excluded the value of water rights,
9 and was limited to estimating the decommissioning costs. Company witness Ms.
10 Perkett also responds to this criticism in her Rebuttal Testimony.

11 **Q. MR. POUS STATES THAT BURNS & McDONNELL FAILS TO RECOGNIZE**
12 **THAT THE COMPANY WILL CONTINUE TO EXPENSE SOME PORTION OF**
13 **ASBESTOS REMOVAL OVER THE REMAINING LIFE OF ITS UNITS RATHER**
14 **THAN INCUR ALL COSTS AT RETIREMENT. IS THERE A REASON THAT**
15 **WAS DONE?**

16 A. Burns & McDonnell prepared the decommissioning cost estimates based on the
17 facilities as they currently stand. The decommissioning costs are updated every
18 few years, at which point they would be adjusted to account for changes to
19 asbestos quantities, as well as any other changes that occur to the facilities.

20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

21 A. Yes, it does.