- Duquesne fails to consider the impact of future gas prices on market prices. There is likely to be upward price pressure on gas markets, which will impact and increase long-term electricity prices.

- Duquesne's inflation data results in an understatement of market prices.

- Duquesne's market price projections are unreasonably low compared to other recent estimates.

- The projections Duquesne uses resulting from its recent solicitation, or RFP, are not credible as to what electricity market prices will be, and suggests instead that prices in a deregulated market will be higher. If Duquesne believed its own solicitation analysis, it would be best for Duquesne to shutdown all of its coal fired plants and two of its nuclear plants and thereby save $1.158 billion between now and 2005.

The terms of Duquesne's proposed RFP or annual solicitation to set the stranded cost charge or CTC are designed to depress bid prices and understate market prices. For instance, bidders are not provided assured transmission rights on Duquesne's system. Additionally, the solicitation is for energy only and does not reflect the cost of other services. The bottom line is that the solicitation will not reflect market prices. The City claims Duquesne as much admitted this. City M.B. at 9-11.

(5) DII's Position

The DII market price forecast relies on independent publicly available data sources such as information supplied to the Federal Energy Regulatory Commission ("FERC"), the North American Electric Reliability Council ("NERC") and the East Central Area Reliability Coordination Agreement ("ECAR"). DII St. 2 at 41. The data is changed only where the original source is clearly wrong or inappropriate for the model. Id. at 34, 42. DII discusses the major inputs to that forecast below, i.e., relevant market, fuel price projection, reserve

margin, and cost and efficiency of new generators. DII claims its inputs are reasonable and the resulting market price forecast should be accepted by the Commission. DII M.B. at 36.

The first input to be considered in performing a market price projection is the relevant market that the projection will model. DII models the ECAR market with consideration of imports and exports to that market. DII St. 2 at 15. ECAR is used because Duquesne currently participates in pool-wide relationships for reliability with the other ECAR members. OCA also models the ECAR market. OCA St. 3 at 3-4. No substantial dispute exists in this proceeding as to whether ECAR is the correct market for modeling purposes. DII M.B. at 36.

The second major input to the market price forecast is fuel price projections. DII relies on the Energy Information Association ("EIA") fuel price forecast, which periodically releases projections for the escalation of coal, oil and natural gas prices. DII St. 2 at 20. These projections are needed to determine the expense that a generating unit will face for the fuel necessary to operate the unit. Duquesne agrees that DII's use of the EIA forecast is "reasonable." DII M.B. at 36-37; Duquesne St. 9R at 11.

Another critical input in a market price forecast is the assumption of any type of reserve margin on a market-wide basis. The reserve margin incorporated in the analysis triggers the addition of new generating capacity where demand for electricity begins approaching the maximum output of the units modeled. DII St. 2 at 21. DII uses a 15% reserve margin adder to market prices to account for new capacity. Duquesne objects to this input stating: "It is inappropriate to force all suppliers to meet a 'one size fits all' reserve level, and it is incorrect to assume a planning reserve level in the development of market prices where no such reserve level is required by the region." Duquesne St. 9R at 3. Duquesne believes the market will

determine the appropriate reserve level in the future. N.T. 914. Duquesne currently uses a 12% reserve in its integrated reserve planning and plans to maintain that level so customers will "enjoy traditionally high levels of service reliability." Duquesne St. 9 at 9. It is reasonable to expect that customers in the deregulated environment will desire the same level of reliability they now obtain from Duquesne as a regulated entity. N.T. 919. Consequently, it is reasonable to assume the market itself, as dictated by customers' desire for a continued higher level of reliability of electricity supply, will fall at an equilibrium based on a 15% reserve requirement. DII's use of a 15% reserve margin is clearly appropriate and should be endorsed by the Commission. DII M.B. at 37.

The final major input to the market price projection is the cost and efficiency of new generating capacity. As the demand for electricity approaches the maximum amount of electricity that current generators can supply, DII suggests new units will be constructed. Consideration of anticipated capacity additions is necessary because the cost and efficiency of those new units will affect future market prices. New units must sell electricity at prices sufficient to recover their average variable cost, which includes a contribution to the fixed cost associated with operating the unit. DII St. 2 at 16. DII uses the following costs of new capacity: $595/kW CC; and, $300/kW oil-fired CT. Id. at 25. These figures are consistent with assumptions used by other utilities in restructuring proceedings. The efficiency of new units is indicated by the anticipated heat rate. DII uses a heat rate of 7,000 btu/kWh. Id. at 17. This is a reasonable assumption based on the most recently built generating units and the possibility of new environmental regulations, plant aging or effects of cycling that may degrade

performance. Id. Duquesne's use of a 6365 to a 6625 btu/kWh for a combined cycle unit is overly optimistic and must be rejected. DII M.B. at 37-38.

DII notes the inputs used in a market price simulation have a major effect on the results. The best sources of those inputs are unbiased reports submitted to organizations such as ECAR, NERC and FERC for purposes other than a market price projection. DII relies on these independent sources for the inputs used in its market price projection. DII claims its inputs are reasonable, independent and verifiable. The market price projection based on those inputs should be accepted by the Commission. DII M.B. at 38.

DII notes Duquesne criticizes one of the inputs used by DII. Duquesne M.B. at 30-31. Specifically, Duquesne criticizes DII's use of a 15% reserve margin. DII explains the 15% reserve margin is clearly a reasonable input to its forecast. DII M.B. at 37. Duquesne currently uses a 12% reserve margin for its planning purposes. Duquesne St. 9 at 9. It is axiomatic that customers in the competitive market will desire at least the same level of reliable service that they receive in the regulated market. The Act suggests that system reliability, including adequate generation, may need to be coordinated in the competitive market, e.g., through an independent system operator. 66 Pa. C.S. §§2802(20) & 2804(14). DII M.B. at 37. Consequently, it is reasonable to assume the market (as dictated by customer demand) will fall at equilibrium based on a 15% reserve margin requirement. DII R.B. at 20-21.

Duquesne also attempts to address DII's criticism of Mr. Schnitzer's cost of a new combined cycle unit. Duquesne M.B. at 32. DII submits Duquesne's argument in this regard is moot. Under the DII forecast, capacity additions are based on new combustion turbine units being the most economic capacity choice in ECAR, unless in a certain instance the incremental

capital cost of the combined cycle plant over a combustion turbine is profitable. DII St. 2 at 43. DII's market price forecast supports adequate addition of cheaper CT units, not Duquesne's inflated price of adding new CC units. DII R.B. at 21.

DII claims Duquesne also selectively quotes DII witness Falkenberg. Duquesne M.B. at 31, fn. 24. The correct and complete testimony on the cited page is as follows:

> Q. Mr. Schnitzer testifies that a true "market" based evaluation would be superior to an administratively determined estimate of stranded costs. Do you agree?
>
> A. Perhaps Mr. Schnitzer has a point. However, current electricity markets are too immature to provide a realistic assessment of market prices needed for this type of analysis. A reasonable solution would be for Duquesne to offer its assets for sale. GPU has recently decided to do just that. Duquesne's proposal to use short term contract prices is really not a reasonable approach because it does not derive a true market value or stranded cost. It would be equivalent to Mr. Schnitzer determining the "stranded cost" of his car by running an ad in the classifieds to rent it for a few months and then comparing the best offer to his monthly car payments. In contrast to the low market prices suggested by recent solicitations (comparable to the above-referenced amateurish automobile rental scenario), recent asset sales have produced exceptionally good results. Until Duquesne is willing to actually put its assets on the block, the claim that market prices are now low is completely irrelevant. Indeed, the Commission should well recall that Duquesne sold its share of Fort Martin Unit 2 to APS for a substantial gain. Thus, the actual market data currently available suggests that Duquesne has not realistically assessed its stranded costs. In short, Duquesne has not met anything close to a reasonable burden of proof.

DII St. 2 at 13-14. No inconsistency exists, when this testimony is considered in its entirety. DII R.B. at 21-22.

(6) HSS/ARI's Position

(A) Input Assumptions (1998-2005)

HSS/ARI assert there are two key input assumptions for Schnitzer's price projections for the period 1998 through 2005. His first assumption is that the results of Duquesne's RFP can serve as the starting point for the projection. The second is his apparent assumption that a mere 200 basis point risk adjustment factor will be adequate to solve for an equivalent all-hours retail spot price stream. Duquesne St. 3 at 34. Schnitzer's use of Duquesne's RFP results is designed to produce an artificially low forecast of market prices. HSS/ARI M.B. at 30.

Duquesne conducted an RFP in June of 1997 in which it offered to sell in a wholesale transaction a minimum of 50 MWs of firm power for a one-year period and a minimum of 100 MWs (with a maximum of 500 MW) of firm power for an eight-year period commencing on January 1, 1998. Duquesne St. 7 at 6. Duquesne sent out 300 notices to marketers around the country to participate in the RFP. N.T. 156. Nonetheless, Duquesne received only five bids for the one-year sale and only 11 bids on the eight-year sale. Duquesne St. 7 at 9; N.T. 823. HSS/ARI assert that level of non-participation alone should have suggested to Mr. Schnitzer that there were factors at play that disqualified the RFP results from being a meaningful measure of market value. HSS/ARI M.B. at 30.

As a result of the RFP, contracts were executed with two entities for a total sale of 50 MWs for one year, and with one entity for a sale of 100 MWs for the eight year period. Duquesne St. 7 at 10. The weighted average price for the one-year sale was $18.16/mwh and the winning bid for the eight-year sale was $20.19/mwh on a "nominal" levelized basis. Id.

Mr. Schnitzer then adjusts those numbers, using his 200 basis point risk premium adjustment, an assumed inflation rate of 2.5% and assumes risk free and risk-adjusted discount rates to determine a 1998 spot market price of 1.78¢/kWh. Duquesne Exh. MMS-4. Schnitzer projects that price out to 2005 based upon the assumptions previously discussed. Id. Those price projections then are used to calculate the 1999-2005 portion of Duquesne's stranded cost claim set forth in Duquesne Exhibit DJC-20. HSS/ARI contend those projections do not serve as a reasonable measure of future retail market values. HSS/ARI M.B. at 30-31.

(1) Design Flaws

HSS/ARI find the first problem with Duquesne's RFP is that it was a wholesale transaction. HSS/ARI Exh. RBW-15 at 5; N.T. 739. Thus, the RFP sales prices necessarily will understate retail market prices and understate the price Duquesne can obtain by selling its own power in a competitive retail market. Thus, the RFP sales price does not constitute evidence of an amount that "may not be recoverable [by Duquesne] in a competitive electric generation market" in disregard of the requirement of Section 2803 of the Act. HSS/ARI M.B. at 31.

Further, HSS/ARI declare Duquesne's RFP was designed to provide the result Duquesne needed - a low estimate of the market value of electricity that would serve to maximize Duquesne's stranded cost claim. Duquesne conducted its RFP for just a tiny fraction of its entire power needs, i.e., the sale of a minimum of 50 MWs of firm power for a one-year period and a minimum of 100 MWs of firm power for an eight-year period. However, prices resulting from an auction of those minimal quantities of power cannot be reflective of the value

of the whole market for Duquesne's energy in 1998 or in the years through 2005. HSS/ARI St. 1 at 27. In fact, to claim that a solicitation for 50 MWs of electricity (or even 500 MWs) can act as a surrogate for all the power needs of Duquesne, let alone the Western Pennsylvania region, or be reflective of prices on the PJM and/or ECAR regions is suspect on its face. Consider that 50 MW represents only 2% of peak demand in Duquesne's service territory, and 0.05% in ECAR. HSS/ARI M.B. at 31-32; HSS/ARI St. 1 at 27.

At best, HSS/ARI argue the RFP measures the incremental generating costs of incremental output from existing generation that has already been committed, similar to the system lambdas.[76] These incremental costs do not include any "start-up" or "no load" variable O&M costs, much less any of the "to go" or "going forward" costs, such as fixed O&M costs, capital additions, or fixed fuel costs. An examination of Duquesne's own costs amply proves the point. HSS/ARI M.B. at 32.

HSS/ARI note Duquesne has testified that its unbundled total costs of generation are over $60/mwh, with those total costs including essentially sunk costs, e.g., the return on and return of equity in the plant, and expected variable costs. HSS/ARI Exh. RBW-11. Duquesne also estimates its "to go" or "going forward" costs for these generating units as between $23.3/mwh and $35.9/mwh on a five-year levelized basis. HSS/ARI M.B. at 32; HSS/ARI Exh. RBW-12.

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[76] HSS/ARI note the "system lambda" reflects the incremental costs to operate the marginal plant on the Duquesne system to produce a small quantity of additional power, which is typically the incremental fuel charge. For example, Duquesne's system lambda at 75% capacity factor was approximately $18/MWh in 1996. HSS/ARI M.B. at 32, fn. 8; HSS/ARI Exh. RBW-13.

Generally, in a competitive market, a firm only will commit to sales at prices at least covering its "to go" costs. HSS/ARI St. 1 at 29. Thus, most firms typically will not sell unlimited quantities of a product for $18/mwh, the weighted average price for the one-year sale under Duquesne's RFP, if it will cost them significantly more to produce such power on a "going forward" basis. Rather, plants with higher operating costs will be shut-down. As supply decreases, the market price will increase to higher levels sufficient to attract either operation of the shut-in units or construction of new capacity. Id. at 29. Thus, if Duquesne's RFP truly is designed to establish market value for electricity in Duquesne's service area, HSS/ARI contend the RFP suffers fatal design flaws that disqualify its use for establishing a benchmark. HSS/ARI M.B. at 32-33.

(2) <u>The RFP's Terms & Conditions</u>

HSS/ARI claim the terms and conditions contained in Duquesne's RFP also disqualify the RFP results from setting a valid measure of market value. Those terms and conditions: (i) reduced the number of potential buyers; and (ii) reduced the price bid by the limited number of bidders that actually participated in the process. HSS/ARI M.B. at 33.

In the real world of power purchasers, HSS/ARI explains a power purchaser would have bid on Duquesne's RFP only to the extent that it specifically required one year or eight years of power starting on January 1, 1998. HSS/ARI St. 1 at 30. However, Duquesne's RFP did not contain any flexibility to accommodate differing power purchaser's needs with respect to the length of the purchase terms. HSS/ARI Exh. RBW-14. Thus, the universe of potential bidders was reduced to those needing power for exactly one year or eight years, with

no flexibility in bidding to account for, for example, the total economic value of a bid for five years combined with another entity's bid for the remaining three years of the eight-year term. Accordingly, potential bidders not interested in power for a one- or eight-year term would not have contributed any competitive effect on the price. HSS/ARI M.B. at 33.

Moreover, to increase bids in the RFP, HSS/ARI assert Duquesne would have had to increase options available to power purchasers. HSS/ARI St. 1 at 30. However, Duquesne's RFP did just the opposite - it decreased options associated with the power solicitation. Id. Clearly, selling a specific product without any options to modify it will reduce the number of potential purchasers. HSS/ARI M.B. at 33-34.

In addition, Duquesne's actions with respect to bids indicate it was not interested in maximizing the number of bidders. For instance, Duquesne rejected a bid submitted by facsimile even though the facsimile was hand-delivered to Duquesne on a timely basis. HSS/ARI Exh. RBW-15. That bid for the one-year term was $20.00/mwh or $1.84/mwh higher than the weighted average of the two accepted bids. Id. Further, the bid submitted for the eight-year sales arrangement was higher on a net present value basis than the winning bid. HSS/ARI St. 1 at 31. Accordingly, it is apparent that Duquesne's interest in conducting the RFP was not to maximize the value of the offer accepted. HSS/ARI M.B. at 34.

(3) Transmission Limitations

HSS/ARI claim Duquesne also lowered the end-results of the RFP by including numerous transmission limitations. For example, page two of the RFP solicitation flatly warned potential bidders that Duquesne "is not responsible for procuring the necessary transmission and

ancillary services on Duquesne's transmission system to resell the power . . . ." Duquesne Exh. RAI-4; Duquesne St. 7 at 11. "Under the RFP, purchasers were required to secure transmission service over the Duquesne transmission system. Therefore, the bid prices that Duquesne solicited relate solely to the value of Duquesne's firm power at the generating station, not the cost of delivering that power, e.g., transmission charges." Id. Thus, a potential bidder in the RFP would have had to decrease its bid to adjust for inclusion of transmission charges. The bids offered, therefore, would have been reduced by a bidder's estimation of transmission charges. Id. Also, a bidder would have needed to purchase transmission under Duquesne's open access tariff, including ancillary services, as well as any transmission access in place in the control areas into/through which this power is being delivered. HSS/ARI St. 1 at 32. Thus, the net effect of this limitation was to reduce the amount bid for the electricity. HSS/ARI M.B. at 34-35.

(4) Take or Pay Implications

HSS/ARI contend the take-or-pay provision in the RFP also shows the winning bids do not reflect the actual price that would have been paid on a net basis. Under the RFP, a winning bidder effectively would have committed to paying 75% of the winning bid price, regardless how much power could be delivered to its market. HSS/ARI Exh. RBW-14 at 7-8. Thus, a successful bidder would have been aware that it was committing to pay for the power associated with the RFP, regardless of whether it actually took delivery of all the power under the contract. For example, if a bidder agreed to pay $19/mwh with a 75% take or pay clause, but only expected to be able to take the power 50% of the time, the resulting effective price of

the power would be $28.5/mwh (before transmission and ancillary service charges). HSS/ARI St. 1 at 36. Combining this "take-or-pay" factor consideration with transmission charges indicates the real costs of the power to a potential purchaser would be much higher than its bid for the power. Accordingly, a bidder additionally would have reduced its bid to account adequately for this take-or-pay clause. HSS/ARI M.B. at 35.

In conclusion, HSS/ARI argue the results of Duquesne's RFP were pre-determined by the very nature of Duquesne's solicitation, and were designed to understate the real value of electric power in Duquesne's service territory. As such, it was unreasonable for Schnitzer to use the RFP results as a starting point for his 1999-2005 price projections. HSS/ARI M.B. at 35.

In rejoinder testimony, Duquesne's witness Lahtinen describes certain adjustments Duquesne will make to future RFP results to set customer generation credits ("CGCs") under Duquesne's proposal. Duquesne St. 5R at 2. He acknowledges Duquesne will make those adjustments to try to take the RFP results from a wholesale to a retail level. N.T. 728-729. Nonetheless, neither Lahtinen in the context of calculating CTCs, nor Schnitzer in the context of trying to forecast future competitive retail market prices make any adjustment to the RFP results to account for a bidder's overhead or profit margin. Further, Schnitzer's decision to apply a 200 basis point risk adjustment does not cure that problem. Moreover, the 200 basis point adjustment is arbitrary and unreasonably low in any event. Schnitzer himself acknowledges that average risk premiums rise to 300 basis points because spot prices, on average, in certain developed energy markets are higher than futures prices. N.T. 423-424. But as Duquesne's Treasurer, Mr. Clayton, acknowledges, "[t]here's not a futures [electric]

market that's well established." N.T. 248. Thus, one may reasonably expect that a risk premium higher than 300 basis points will more accurately reflect the risk adjustment required to determine a spot market price from Duquesne's RFP results. Of course, "[t]he higher the risk premium, the higher the spot price would be." N.T. 425. As such, it is clear Duquesne does not apply an appropriate risk premium that would have adjusted Duquesne's RFP results to reflect an appropriate spot market wholesale price, let alone a competitive retail price. Given that fact, it simply is not credible to claim that Duquesne's incremental wholesale auction of power is even remotely reflective of a retail price that Duquesne may expect to prevail in its market. As such, the Company's 1999-2005 price projections that are based upon the RFP results simply are not credible. HSS/ARI M.B. at 36.

(B) Input Assumptions (2006-2026)

Just as the starting point for Duquesne's 1999-2005 price projections is unreasonably low, HSS/ARI assert the Company commits the same error with respect to its post-2005 price projections. As a starting point for projecting post-2005 prices, Mr. Schnitzer assumes the technology of choice in 2006 will be gas-fired combined cycle units and he assumes a range of estimates of capital costs for those units allegedly based upon a review of industry data. Duquesne St. 3 at 26, 28. Based upon those capital cost assumptions and other assumptions that are set forth in his Exhibits MMS-2 and MMS-3, Mr. Schnitzer assumes the cost of entry for newly constructed generating units in 2006 will range from a low case estimate of $34/mwh (2006$) to a high case estimate of $44/mwh (2006$). Id. at 27. In calculating Duquesne's stranded cost claim in Exhibit DJC-20, Duquesne's witness Clayton relies upon the

prices Schnitzer derives from his low case estimate to calculate $1.9 billion in stranded costs that Duquesne now claims as of January 1, 1999. Duquesne St. 2R at 12; Duquesne Exh. DJC-20 at 3-17. However, HSS/ARI contend Schnitzer's capital cost assumptions for CC units on which that stranded cost claim is based, as well as other key assumptions made by Schnitzer, are unreasonably low and not supportable. HSS/ARI M.B. at 37.

In Duquesne Exhibit MMS-2, Mr. Schnitzer assumes capital costs for CC units of $395/kW (2005$) and $500/kW (2005$), respectively, for his low and high case estimates. Translated to 1996 dollars, Schnitzer's capital cost estimates would be $316/kW and $400/kW. N.T. 438-439. Schnitzer claims those capital cost assumptions are based upon his review of industry data. Duquesne St. 3 at 28. In his rebuttal testimony, Schnitzer justifies his estimates by asserting that "a review of Gas Turbine World . . . indicates that . . . installed costs are now quoted as low as $318 to $380 per kW." Duquesne St. 3R at 22. The Gas Turbine World edition that Schnitzer refers to was for 1997. N.T. 440. In 1997 dollars, using Schnitzer's assumed 2.5% inflation rate, his price estimates will be $324/kW and $410/kW, respectively. HSS/ARI assert a review of data from Gas Turbine World's 1996 and 1997 editions impeaches Schnitzer's claim that his capital cost estimates are reasonable. HSS/ARI M.B. at 37-38.

HSS/ARI compare Schnitzer's capital cost assumptions to prices for CC units as reported in the 1996 edition of Gas Turbine World. HSS/ARI obtain those data from Schnitzer in response to an interrogatory in which Schnitzer provides data that he apparently does not rely upon. HSS/ARI Cross Exh. 3. In the one page table of data that Schnitzer provides, prices for the 28 CC units listed range in price from a high of $1200/kW to a low of $403/kW. Id. Thus, Schnitzer agrees his assumed capital cost in his high case is lower than every price listed in the

1996 Gas Turbine World report. N.T. 439-440. A review of the data also shows the smaller the net plant output of a unit, the higher the price per kW, a fact that is consistent with Schnitzer's understanding, as well. N.T. 436. The data also show that whereas the smaller units are listed with budget prices in a range from approximately $60 million to $120 million, the largest, lowest price per kW units are significantly more expensive on an absolute basis, having budget prices of $200 million to $350 million. HSS/ARI Cross Exh. 3. Thus, the data show that many of the lower cost units on the page (in terms of absolute costs) have prices per kW in a range from $500/kW to $800/kW, as compared to Schnitzer's high case estimate of only $400/kW. Id. Thus, in every respect, the data from the 1996 Gas Turbine World report demonstrate Schnitzer's capital cost assumptions (high as well as low), which are the foundation of his post-2005 price projections, are totally unsupported. HSS/ARI M.B. at 38-39.

HSS/ARI declaim Schnitzer's defense of his estimates is based upon data in the 1997 Gas Turbine World report and his claim that prices dropped significantly from 1996 to 1997. Duquesne St. 3R at 22; N.T. 440. However, the 1997 Gas Turbine World report further impeaches Schnitzer's credibility. HSS/ARI M.B. at 39.

HSS/ARI present the 1997 Gas Turbine World report as HSS/ARI Cross-Examination Exhibit 10. Unlike the one-page excerpt of the 1996 report that is included in HSS/ARI Cross Examination Exhibit 3, HSS/ARI Cross Examination Exhibit 10 contains the entire report concerning pricing of CC units. Read as a whole, HSS/ARI assert the report is revealing. HSS/ARI M.B. at 39.

The report sets forth prices for a total of 56 CC units, thus including units with substantially smaller net plant output than are set forth in the one-page excerpt that comprises

HSS/ARI Cross Examination Exhibit 3. Of the 28 units listed on page 24 of the report, prices per kW range from a high of $1000/kW to a low of $612/kW in 1997 dollars as compared to Schnitzer's high case assumption of a $410/kW (1997$). Further, the absolute price for those units range from just $2.2 million to $58.5 million. HSS/ARI M.B. at 39.

On page 26 of the report, only 11 of the 28 units list prices lower than Schnitzer's high case estimate of $410/kW(1997$), and only one unit has a price lower than his low case estimate of $324(1997$). In general, the 11 units with prices lower than Schnitzer's high case estimate carry the highest absolute prices ranging from approximately $100 million to $260 million. Further, the net plant output on those units range from approximately 260 MW to 760 MW, as compared to the lower absolute cost units listed in the report as a whole that, in general, have net plant output ranging from just 7.9 MW to approximately 180 MW. Moreover, according to Schnitzer, the lowest cost per kW unit listed in the report, the only one that has a lower price per kW than Schnitzer's low case estimate, is the state of the art design. N.T. 440-441. Its net plant output is rated at 757.5 MW. HSS/ARI M.B. at 39-40.

Thus, to accept Schnitzer's assumed capital cost estimates, which are the most critical input assumption to his post-2005 price projections, HSS/ARI argue one must accept a premise that in all instances new plant construction will consist of the largest output, highest absolute cost units, and smaller, lower absolute cost CC units will not be sold. In other words, in his high case estimate, which forms the basis for Duquesne's stranded cost calculation of $1.537 billion, one must assume installation of one of 11 units to the total exclusion of the 45 other CC units listed in the report, regardless of the plant output needed to serve incremental load at any given time. And, in his low case estimate, which forms the basis for Duquesne's

$1.916 billion stranded costs claim, one must assume installation of the one state of the art unit with capacity of approximately 760 MW and an absolute cost of $240 million to the total exclusion of the 55 other CC units listed in the report, regardless of the plant output needed to serve incremental load at any given time. In other words, Schnitzer's estimates assume new generation plants will not be sized to market requirements and funds always will be available for the purchase of the state of the art equipment costing hundreds of millions of dollars. HSS/ARI finds the proposition absurd on its face and disqualifies his analysis from being accorded any level of credibility. HSS/ARI M.B. at 40.

HSS/ARI discover an even a more critical mistake in Schnitzer's presentation. Schnitzer testifies that his cost estimates are "installed costs" that include items such as "interconnection with the electric grid, an initial stocking of spares and materials and supplies and a fuel supply interconnection . . . cost of land." N.T. 431-433. He further testifies that "[w]e relied on the number of sources which quote, fundamentally installed costs . . . ." N.T. 433. In his rebuttal testimony, he states the 1997 Gas Turbine World report that he claims justifies his capital cost estimates "indicates that . . . installed costs are now quoted as low as $318 to $380 per kW." HSS/ARI M.B. at 40-41; Duquesne St. 3R at 22.

But, HSS/ARI notes the 1997 Gas Turbine World report states:

> These turnkey price levels, as noted, are for 'plain vanilla' plant equipment and services. Extended site work such as co-generation process steam or utility plant tie-ins are not covered, nor are extensive buildings, nor are a large inventory of operational spares such as combustor baskets, blades and vanes, etc.

> Also not included are the indirect, or so-called 'soft costs' that can significantly increase the overall project budget costs.[77] These would include interest during construction, financing and legal fees, licensing and permitting, insurance and bonding, workman's compensation, sales tax, extensive inland freight, owner's cost and overhead, and finally, project contingency funds.

HSS/ARI M.B. at 41; HSS/ARI Cross Exh. 10 at 22 .

When Mr. Schnitzer claims his capital cost estimates are as "installed," HSS/ARI argue he is wrong. As a consequence, his unreasonably low capital cost assumptions, which are the major input that drives his post-2005 price projections, neither are credible nor even usable as a starting point for projecting future prices for use in this proceeding. Nonetheless, to be comprehensive, HSS/ARI discuss a few additional points to show the other major input assumptions Schnitzer uses in projecting post-2005 prices also are unreasonable and designed to derive prices that will substantially understate prices that are likely to prevail. HSS/ARI M.B. at 41-42.

(1) Gas Price Projections

HSS/ARI note because Schnitzer assumes the technology of choice in 2006 will be natural gas-fired combined cycle units, his forecast of natural gas prices is a critical factor in his post-2005 price projections of electricity. HSS/ARI St. 1 at 125; N.T. 447. Obviously, the lower his forecast of natural gas prices, the lower his forecast of electric prices. HSS/ARI claim the evidence clearly shows Schnitzer's forecast of natural gas prices is unreasonably low and without foundation. HSS/ARI M.B. at 42.

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[77] Schnitzer was not familiar with the term "soft costs." N.T. 431.

HSS/ARI assert there are two primary flaws in Schnitzer's analysis that discredit his forecast of natural gas prices. First, Schnitzer assumes a wellhead gas price forecast that is low by comparison to other existing forecasts. Second, Schnitzer uses a gas transportation rate that is unrealistically low. HSS/ARI M.B. at 42; HSS/ARI St. 1 at 125.

With respect to his forecast of wellhead prices, the sole source that Schnitzer uses as a basis for that forecast are "quotes for forward prices through 2005 for gas delivered to Henry Hub in Louisiana." Duquesne St. 3, at 26. As can be seen from HSS/ARI Exhibit RBW-49 and HSS/ARI Cross-Examination Exhibit 5, the "quotes" consisted of nothing more than a letter from an over-the-counter securities brokerage firm concerning futures prices at Henry Hub. However, Schnitzer makes no investigation to compare the quoted prices to current natural gas prices at Henry Hub. N.T. 452. His forecast does not take into account significant upward movement in recent Henry Hub prices. HSS/ARI Cross Exh. 6 at 3; N.T. 455. Thus, the underlying source "data" for Schnitzer's price forecast is remarkably shallow. HSS/ARI M.B. at 42-43.

Further, the price forecast Schnitzer develops is low compared to virtually all other sources. Schnitzer's forecast basically is flat in nominal terms, in the range of $2.20 to $2.60 per MMBtu. Duquesne Exh. MMS-3. Thus, HSS/ARI explain, because that projection is stated in nominal terms, it implies that real fuel prices, i.e., that take inflation into account, decrease in each year at approximately the rate of inflation through 2026. HSS/ARI St. 1 at 126. That is an unreasonably low assessment when compared to projections by other sources, including Duquesne itself. HSS/ARI M.B. at 43.

For instance, HSS/ARI witness Dr. Weisenmiller reviews publicly available natural gas wellhead forecasts released by EIA, WEFA, DRI and GRI. HSS/ARI Exh. RBW-50. Over the period 1995 to 2015, all of those forecasts predict real increases in the price of natural gas, ranging from 0.1 to 2.5% per year. HSS/ARI St. 1 at 126. In Duquesne's latest Integrated Resource Plan ("IRP"), filed September 1996 and updated May 1997, Duquesne used a natural gas price escalation rate of 4.9% per year. HSS/ARI St. 1 at 128. Thus, Schnitzer's natural gas forecast not only is unreasonably low vis-a-vis the forecasts of forecasting organizations, it is even far below Duquesne's own forecast officially on file with the Commission. HSS/ARI M.B. at 43.

If Schnitzer's forecast of wellhead prices is unreasonably low, HSS/ARI contend he compounds the unreasonableness of his delivered price forecast by assuming a transportation rate that is at odds with fact. To determine a transportation rate to get natural gas to delivery points in ECAR, Schnitzer relies upon a handwritten note he received from Columbia Energy Services, an affiliate of Columbia Gas Transmission. N.T. 457-458. Based upon the handwritten document, Schnitzer assumes a 24¢ transportation rate to transport natural gas from Henry Hub to the market area. N.T. 457. That differential is set forth in Duquesne Exhibit MMS-3. HSS/ARI M.B. at 43-44.

However, HSS/ARI submit the transportation rate does not capture a reasonable price for the transportation of natural gas. For one thing, the document on its face notes that CNG, another interstate pipeline that supplies transportation to the Duquesne market, "trades

.06-.09 higher than TCO."[78] HSS/ARI Cross Exh. 7. Further, depending upon which column Schnitzer used for his estimate, he may have been relying upon a "best guess" in any event. Id. Equally important is the fact that Schnitzer does not account for all the transportation rates that will have to be paid to get the gas from Henry Hub to the market area. As Schnitzer admits, to get gas from Henry Hub via the Columbia system will require transportation on both Columbia Gulf and Columbia Transmission, which have separate tariffs under which they transport gas. N.T. 460-461. While Schnitzer believes the handwritten note he relies upon is intended to account for transportation from the Gulf Coast to ECAR, he makes no attempt to compare the quoted amount to tariffed rates. Similarly, although he acknowledges a number of interstate pipelines serve the region, he does not examine the tariff sheets for any of those pipelines to compare them to his handwritten quote. N.T. 462-464; HSS/ARI Cross Exh. 8. Schnitzer also assumes, without foundation, that the same delivered gas cost will apply to all potential generating units throughout the U.S., thus, ignoring the reality that transportation costs for new resources likely will vary from region to region and, therefore, vary for different generating units, depending on location. HSS/ARI M.B. at 44; HSS/ARI St. 1 at 127.

Based upon the shortcomings in Schnitzer's analysis, HSS/ARI witness Dr. Weisenmiller examines historical differentials between wellhead and Midwest citygate prices to compare those data to Schnitzer's transportation charge estimate of a mere 24¢/MMBtu. He finds those differentials average in the $0.50 to $1.00/MMBtu range, or 2.5 to five times Schnitzer's best guess transport rate. HSS/ARI M.B. at 45; HSS/ARI St. 1 at 128.

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[78] TCO stands for Columbia Gas Transmission. N.T. 459.

Given this record, HSS/ARI conclude Schnitzer's delivered gas price forecast is no more than a back of the envelop projection that was conducted in an unreasonable manner and severely understates likely future gas costs, the effect of which is to produce an unreasonably low forecast of future electric prices as well. HSS/ARI M.B. at 45.

(2) Inflation Assumptions

HSS/ARI assert another factor resulting in Schnitzer forecasting unreasonably low market prices is overly optimistic prediction of future inflation rates. Dr. Weisenmiller testifies lower inflation rates mean that components of market-clearing prices rise more slowly, and hence market-clearing prices increase more gradually than with a higher presumed inflation rate. HSS/ARI St. 1 at 129. All of the cost components of a new generation facility are exposed to the effects of inflation. Id. Thus, the rate of inflation directly affects the entirety of such new capacity. In contrast, existing plants' costs include amounts which already were expended, are kept on the books at historical costs, and, thus, are not affected to the same degree by a change in future rates of inflation as are new facilities. Id. As a result, lower inflation rates lead to lower costs for new facilities and reduce the resulting market-clearing prices from new facilities placed in operation to satisfy increased demand. Id. Thus, an unrealistically low projection of inflation can create an artificially depressed market-clearing price projection, in turn inflating stranded costs. HSS/ARI claim Schnitzer's assumption of a 2.5% inflation rate produce that result. HSS/ARI M.B. at 45-46.

Schnitzer assumes inflation of 2.5% per year will be in effect during the entirety of the period, which Duquesne uses for purposes of calculating claims stranded costs, i.e., until

2026. Duquesne Exhs. MMS 2, 3, and 4; Duquesne Exh. DJC-20. However, there is no reasoned basis for his assumption. In fact, it appears that even Schnitzer was not prepared to defend it. In response to a request for "all sources relied by Duquesne to justify its presumed 2.5% inflation factor," Schnitzer states that he uses a 2.5% inflation factor because Mr. Clayton uses a 2.5% inflation factor. HSS/ARI Exh. RBW-52. Thus, Schnitzer apparently makes no independent evaluation to determine the viability of a key assumption in his forecast. However, the assumption of inflation rates has a direct impact on the outcome of his forecast. Duquesne Exhs. MMS-3 and 4. Further, the use of a 2.5% inflation rate for a period in excess of 25 years clearly understates the likely effects of inflation. HSS/ARI M.B. at 46.

Dr. Weisenmiller independently reviews the U.S. Department of Commerce's price deflator data complied for nearly seventy years. He compares Duquesne's forecasts of inflation to the gross domestic product price deflator ("GDPPD"), which is closely related to the GNPPD and has become the more common measure of general inflation. HSS/ARI St. 1 at 130. He finds the average level of the GDPPD during the last 25 years (1972-1996) has been 4.64% per year. Id. During the last 50 years, the average has been 4.2% per year. Id. Those historical measures of inflation exceed Duquesne's projection by more than 60%. HSS/ARI Exh. RBW-53. Moreover, Dr. Weisenmiller finds that during the last 50 years, the GDPPD never has increased on average at a rate of 2.5% or less annually for a 25-year period. Id. at 130-131. Dr. Weisenmiller also finds serious outbreaks of inflation occur periodically. During just the last half century, the U.S. experienced significant inflation in 1946-47 (11-12% increases in the annual GDPPD), 1951 (6.8%), 1974-75 (9-9.5%) and 1979-81 (8.5-9.4%). HSS/ARI M.B. at 46-47; HSS/ARI St. 1 at 131.

As a result, HSS/ARI assume that Schnitzer's presumed inflation rate is highly improbable and not credible. Further evidence of that is Duquesne's own estimate of inflation taken from its July 1, 1996 IRP for the period through 2001. Duquesne, itself, assumes inflation ranges from 3.1 to 3.9% per year for the consumer price index ("CPI"). HSS/ARI Exh. RBW-53. CPI measures consumer goods and uses fixed weights, and has historically been higher than broader inflation indices such as the GNPPD or GDPPD. HSS/ARI St. 1 at 132. The historical difference between the CPI and the GDPPD for the 25 years ending 1991 is 0.3%/yr. Id. Thus, Duquesne's IRP inflation forecast, once adjusted, translates into a GDPPD rate in the 2.8%/yr to 3.6%/yr range. Id. Obviously, Schnitzer's 2.5%/yr. assumption appears unreasonably low compared even to Duquesne's own prognostications. HSS/ARI M.B. at 47.

(3) Pollution Control Costs

HSS/ARI claim the final factor that skews Schnitzer's forecast is an input that he does not make, i.e., to reflect pollution control costs in his forecasts. Dr. Weisenmiller points out, to an extent, Duquesne incorporates anticipated NO_X control costs into projected capital expenditures for its plants in considering its future costs of operating existing plants. HSS/ARI St. 1 at 133. The NO_X control costs are based on the requirements of the Clean Air Act Amendments ("CAAA") and Acid Rain Rule requirements. Exh. RLN-6. The CAAA Title IV Phase I regulatory requirements are not the only regulatory program that aims to control NO_X emissions from Duquesne's power plants. HSS/ARI St. 1 at 133. Dr. Weisenmiller testifies that there are several overlapping current and proposed regulations to control NO_X emissions from power plants in Pennsylvania. Id. at 133. Those regulations, which Duquesne has not

even considered, can vastly increase NO_X control costs beyond those incurred by the CAAA Title IV Phase I requirements. Depending on the stringency of the other regulatory programs relative to the CAAA Title IV Phase I requirements, the current emissions of Duquesne's plants, and the ultimate form that the proposed actions take in terms of limits on NO_X emissions, these costs can increase significantly. For example, the CAAA Title IV Phase II requirements are more stringent than the Phase I requirements. This may imply that a utility will have to incur additional expenses to reduce emissions. Id. at 134. Because some NO_X regulations are only at the proposal stage, it is difficult to determine with certainty whether future regulations will increase NO_X control costs beyond those incurred by the CAAA Title IV Phase I requirements. In general, though, future NO_X regulations are expected to be more stringent than both the Title IV Phase I and Phase II regulations. HSS/ARI M.B. at 47-48.

Duquesne's failure to fully account for pollution control costs leads to particularly misleading results because its assumed technology, CCs as gas fired units, will be impacted to a greater extent by NO_X emission costs than will Duquesne's existing coal-fired plants. HSS/ARI St. 1 at 135. Thus, Schnitzer inappropriately raises the spread between Duquesne's projected costs and its expected revenues based on his price predictions by not accounting for NO_X emissions costs on both sides of the equation. HSS/ARI M.B. at 48.

(C) OCA and DII Input Assumptions

HSS/ARI explain a principal reason that Schnitzer's price forecasts are unreasonably low is that his starting point, i.e., assumed capital costs for CC units, is

unreasonably low. Unfortunately, HSS/ARI find the OCA's and DII's price forecasts suffer from the identical shortcoming. HSS/ARI M.B. at 49.

As shown in OCA Statement 2 at 9, OCA's witness Smith assumes capital costs of $560/KW (1997$) for CC units and $296/kW (1997$) for CT units. DII's witness Falkenberg assumes similar capital costs, i.e., $595/kW per CC units and $300/kW for CT units. DII St. 2 at 25. While the OCA's and DII's assumed capital costs for CC units are higher than those Mr. Schnitzer assumes, both the OCA's and DII's estimates are still low and fail to account for various factors that both Smith and Falkenberg indicate can result in higher capital costs than those contained in their analyses. Further, there are other shortcomings in the Smith and Falkenberg analyses. HSS/ARI M.B. at 49.

HSS/ARI discover a critical problem with both Smith's and Falkenberg's estimate of capital costs is explained by OCA witness Smith, himself. Mr. Smith states:

> I expect that many new units will incur higher capital costs than I have assumed, due to one or more of the following factors:
>
> - Greater interest costs during construction;
> - Increase in CC/CT equipment costs from current market conditions, which represent a historical low point;
> - Greater land costs (my figures reflect a generic land price from the Electric Power Research Institute's "Technical Assessment Guide");
> - Greater project development costs, representing the "soft costs" needed for the legal, financing, and permitting efforts needed to develop a successful project;
> - Non-standardized plant features, reflecting tradeoffs between plant design and capital cost. For example, combined cycle units with the most complex and efficient steam cycles will tend to cost more, as will units with

reliability features such as a bypass stack or multiple shaft design. The 1996 Gas Turbine World Handbook (which I used as a source for equipment costs) states: "These turnkey plant price levels, as noted, are for 'plain vanilla' plant equipment and services. Extended site work such as cogeneration process steam or utility plant tie-ins are not covered, nor are extensive buildings, nor a large inventory of operational spares such as combustor baskets, blades and vanes, etc." I have assumed quite competitive reliability (annual availabilities) on the order of 90 percent) and thermal efficiencies (as-operated heat rate of 6,700 BTU/kWh) for new CC units; it is unlikely that these high-performance units will also be the cheapest;

- Selective catalytic reduction ("SCR") equipment for control of NOx emissions on CC units. The turnkey equipment costs underlying my estimate include dry low-NOx burners, but not equipment for catalytic reduction of NOx or CO_2 emissions. To the extent that SCR or other control measures are actually required for some or all of the new CC generating units built in PJM, additional capital and operating costs would be required;

- General Plant. My cost estimates treat the CC and CT options as stand-alone facilities, and do not include an allocation of general plant which would presumably be incurred by generating companies in the ECAR market.

Any or all of these factors could increase the cost of new capacity (and therefore market power prices) relative to my analysis.

OCA St. 2 at 9-10. Thus, Smith's own testimony discredits his own, as well as Falkenberg's, price projections by demonstrating that he and Falkenberg understate the capital cost estimates that serve as the foundation of their price projections. HSS/ARI M.B. at 49-50.

HSS/ARI find another problem with Smith's and Falkenberg's estimates of capital costs is explained by Falkenberg. He cites an article from Electric Utility Week that discusses "serious problems with advanced combined-cycle and combustion turbine units that have become a major concern with owners, investors and insurers." DII St. 2 at 32. He states the article

indicates "more than a half-dozen failures are known and General Electric has indicated that some 70 of its units (many not yet installed) required repair and overhaul in the past two years." Id. at 32:7-9. Falkenberg further indicates the article discusses explosions, litigation and increases in the cost of insurance and financing. HSS/ARI M.B. at 50-51; DII St. 2 at 9-10.

Notwithstanding that article, neither Falkenberg nor Smith, nor Schnitzer for that matter, make any adjustment to their cost estimates to account for the potential cost increases that can arise from the problems discussed in the article. Further, like Schnitzer, neither Smith nor Falkenberg provide any justification for their assumptions that per unit costs should be based upon the largest output, most expensive (in absolute terms) units, as opposed to lower output, lower absolute cost units. Again, both Smith and Falkenberg, like Schnitzer, assume all operators will install the largest output units, regardless of market requirements, and they will be willing to pay $200 million or more for those units, rather than install smaller units that may cost from just $14 million to $100 million. HSS/ARI Cross Exh. 10. Finally, neither Smith nor Falkenberg adequately explain the bases for their assumptions that lower cost CT units (used for peaking purposes, OCA St. 2 at 8) should be considered in estimating future market prices. HSS/ARI M.B. at 51.

Thus, the OCA's and DII's computer-generated price projections suffer from the most major flaw that infects Duquesne's price projections as well, i.e., the starting point for their forecasts also assume unreasonably low capital costs for new generation units. As a result, like Mr. Schnitzer's price forecasts, HSS/ARI contend the OCA's and DII's market price forecasts are unreasonably low, the effect of which is an overstatement of Duquesne's potential stranded costs. HSS/ARI M.B. at 51-51; HSS/ARI R.B. at 14-16.

(7) The PRA's Position

The PRA concurs with the assumptions of the OCA. PRA M.B. at 47-48; PRA R.B. at 12-13.

(iii) Results

(1) Duquesne's Proposal

Duquesne refers the reader to the rebuttal testimony of the Company's witness Mr. Schnitzer for a depiction for the results of the Schnitzer, Smith and Falkenberg forecasts. Duquesne M.B. at 33; Duquesne St. 3R at 20.

(2) The OTS's Position

The OTS notes the results of using the delayed entry portfolio is that generation market value increases from the Company's estimate of $27 million to $159 million and stranded costs are reduced by $132 million (159 - 27 = 132). Duquesne Exh. DJC-20 at 1. See, Appendix, Tables 2 and 3. OTS M.B. at 28.

(3) The OCA's Position

The OCA emphasizes the results of the analysis presented by the Company in this case and that of OCA do not differ dramatically. In particular, Mr. Schnitzer's new entry prices produce a range of market values of Duquesne's generating assets from $27 million at the low end to $278 million at the high end, and $159 million based on a delayed entry. Exh. DJC-20 at 1. OCA witness Smith's market price projection, as adjusted to include Mr. Kahal's

adjustments for productivity and life extensions, produce $299 million of market revenues, at January 1, 1999. OCA St. 1-S, Sch. MIK-1 (December 1997 Update) at 2; Table 1. OCA M.B. at 38.

(4) The City's Position

The City finds Duquesne's projections simply are not credible. The approach used is admittedly unreliable and seems purposely designed to overstate stranded costs wherever possible. Duquesne ignores its own best evidence of market value because that evidence, the recent sale of its interest in Fort Martin Unit 1, would not be in its best interests - which are to overstate stranded costs and prevent competition. City M.B. at 11.

Duquesne's own analysis, which now shows that Duquesne could end up with a stranded benefit of $233 million when corrected for the numerous faulty assumptions, confirms that Duquesne's claim is grossly overstated and entitled to no weight. In fact, if Duquesne's market price projections for the transition period which are based on its solicitation are correct, Duquesne should shut down most of its plants and thereby erase its stranded cost claim. City M.B. at 11-12.

(5) DII's Position

DII posits the results of its analysis are indeed reasonable and should be accepted by the Commission. The motivation for performing a market price forecast in this proceeding is establishing Duquesne's stranded generation costs. In determining Duquesne's stranded generation cost, Duquesne acknowledges that the critical portion of the market price forecast is

the post-2005 portion. Duquesne St. 3-R at 47-48. DII agrees that under the DII analysis, market prices during the transition period are irrelevant to determining the length of CTC collection. DII St. 2-S at 4. The key determinant is the post-2005 market price. Id. .DII M.B. at 38-39.

Despite the Company's criticism of DII's market price forecast, Duquesne's own chart demonstrates that the DII market prices are at or below the Duquesne "Ceiling Low" market price range from 2006 on. Duquesne St. 3-R at 20. The effect of DII's market prices, beyond the transition period, being at or below the low Duquesne market price scenario is to increase DII's recommendation for Duquesne's total stranded generation-related costs. N.T. at 45. DII M.B. at 39.

DII's results obtained from the KPC model are reasonable and reliable. The DII market prices are at or below the Company's "Ceiling Low" market price during the critical post-2005 period. The results are plausible and not biased. DII St. 2-5 at 5. DII respectfully requests that the results of the DII market price forecast be used to determine the market value of Duquesne's generation assets. DII M.B. at 39.

Because the DII market prices beyond 2005 are low, relative to the other forecasts, any alleged inaccuracy serves only to increase the DII stranded cost recommendation. Id. The DII market price projection is reasonable and should be accepted by the Commission. DII R.B. at 22.

(6) The HSS/ARI's Position

HSS/ARI find Duquesne's computer-generated price projections, and those of the OCA and DII as well, are unreasonably understated, and as such, are not credible as starting points from which to estimate stranded costs that satisfy the known and measurable standard. However, there is other evidence of market value in this case that is far superior to Duquesne, OCA's and DII's computer-generated results. HSS/ARI M.B. at 52.

(7) The PRA's Position

The PRA accepts the results of the OCA. PRA M.B. at 48-49.

(c) Other Evidence of Market Value

(i) Duquesne's Proposal

Duquesne finds the only other "market" evidence meriting attention is the sale of Duquesne's interest in the Ft. Martin plant. Duquesne agreed in 1995 to sell its share (276 MW) of the plant to a subsidiary of APS at a price significantly above its book value. Duquesne St. 1 at 26; Duquesne St. 2 at 10-11. Dr. Weisenmiller (HSS), in particular, focuses on the results of this sale in asserting that Duquesne likely has no stranded costs. HSS St. 1 at 22-24, 39. Yet, this assertion is not even consistent with his own deposition, where he conceded that the sale of one unit does not necessarily provide a market value for any other unit. Duquesne St. 2-R at 55. Moreover, the price bid by APS was based on the type of market price "projections" that he criticizes (HSS St. 1 at 23); moreover, those projections "bear no resemblance to current market conditions." Duquesne St. 2-R at 55; See, also, Duquesne St.

3-R at 27.[79] Indeed, the Ft. Martin sale shows how price forecasts can become outdated in only two years. Id. Duquesne M.B. at 33.

(ii) The OCA's Position

The OCA finds Duquesne witness Clayton's estimate of a market value of $27 million for its plants, excluding consideration of decommissioning costs, is inconsistent with other market evidence. OCA St. 1-S at 11. In particular, Mr. Kahal pointed to Duquesne's sales last year of its 50% ownership in the Ft. Martin 1 coal unit for $169 million as about six times its estimate of value for all of its units combined. Id. Indeed, if one were to accept Duquesne's stranded cost calculation, it would make sense for the Company to give away the plants when one considers decommissioning liabilities. Id. at 10. The Company's forecast is below a reasonable expectation of market value for these units and should be rejected in favor of Mr. Smith's market valuation. OCA M.B. at 38.

The OCA notes the Company claims that Duquesne's sale of its 50% interest in Ft. Martin at four times book value is not indicative of the price which could be achieved for other units. Duquesne M.B. at 33-34. While OCA has not suggested that all of Duquesne's plants are worth four times book value, the fact that the Company ignores this and other sales of generating assets at well above book value belies its real interest in relying on "market evidence." Clearly, the Company could have performed an evaluation of this other "market evidence" by comparing the economics of generating units such as Ft. Martin that have been

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[79] HSS also refers to market assessments provided to Duquesne by third parties. HSS St. 1 at 15-21. HSS fails, however, to note that a range of valuations was provided, including scenarios where the plants had no value. Duquesne St. 2-R at 54.

purchased and the price paid for them, but failed to provide any such analysis. OCA submits that these transactions are better "market evidence" than the estimated cost of new gas-fired combined cycle plants in 2006 that Mr. Schnitzer used in performing his market price analysis. As Company witness Marshall recognized, Ft. Martin is a valid piece of market evidence, although only one data point. N.T. at 71. Clearly, such other market evidence should be considered in assessing the reasonableness of market value estimates made in this case. OCA R.B. 10.

(iii) The City's Position

The City posits Duquesne has ignored considerable evidence of market value that would reduce and potentially eliminate its stranded cost claim. The most obvious example, of course, is Fort Martin Unit 1. The sale of Duquesne's interest in this plant to APS' subsidiary at more than four times book value provides a real valuation of generating assets that serve Duquesne's territory. Mr. Weisenmiller testified that Duquesne has no stranded cost claim under the Fort Martin case. City M.B. at 12.

The results of the Fort Martin sale are consistent with Duquesne's internal consultants' studies and analyses. The Metzler consulting firm told Duquesne that the value of just four of its plants could exceed book value by over $650 million; Duquesne's investment bankers' analyses show even higher results. Id.

Duquesne recently has boasted to the financial community that it has substantial financial strength, including improved earnings and growth rates in earnings per share and dividends near the top of the industry. Yet, it would have the Commission believe that its

generating assets are worthless and that it would surely have to pay someone to take them off its hands. Id.

In addition to ignoring the Fort Martin transaction, Duquesne disregarded billions of dollars of generation asset sales illustrating that, within the last six months, substantial generating assets sold at a premium over book value. Id.

Practically all parties agree that the best evidence of the value of Duquesne's generating assets would be produced by a sale of those assets, including Duquesne – which has proposed such a sale in 2003, at the discretion of the Commission, unless its merger with APS is approved. Besides providing the best method of valuing assets, such a sale would supply a more credible estimate of stranded costs, advance a more immediate transition to a competitive generation market and would promote effective competition by providing an opportunity for potential competitors to gain entry into the market. Id. at 13.

But Duquesne's divestiture proposal, its basic "rebuttal" to the very serious criticism of its restructuring plan, is really just a subterfuge to garner labor and public support for its APS merger since divestiture would only occur if the merger is *not* approved, and only then in 2003 - after Duquesne has collected hundreds of millions of dollars in CTC charges, provided no rate relief to its customers for six years, and suppressed the formation of a competitive generation market. If the merger is approved, Duquesne plans no real changes at all and, accordingly, ratepayers would continue to pay the same high rates for eight years without competition and without realizing any appreciable benefit from the Act. Id.

Duquesne attempts to create an impression that if the merger is not approved and divestiture occurs, massive job losses and economic damage to communities that house its

generating plants will occur. The result, it hopes, will be increased pressure for Commission approval of the merger and thus, no divestiture. But Duquesne's premise that its employees will lose their jobs in the event of divestiture, and that local communities will be harmed is - just like its divestiture "proposal" - a ruse. Id. 13-14.

It is unlikely that divestiture would result in any massive loss of jobs. Quite the contrary, current employees will have an advantage in retaining employment under new ownership. There are a number of plants that have changed hands recently without significant changes in staffing and Duquesne could ensure this result by so conditioning the asset sale or by making other commitments. Regardless of who owns the plants, staffing and closure decisions should be based on the economics dictated by competition. It could be that new owners will find greater value in Duquesne's assets and the results, long-term, would be more beneficial to the current employees and to the communities. This is particularly so given Duquesne's very poor track record of operations. Id.

Further, there is no credible reason to wait until 2003 for a divestiture. Duquesne's reasonings, that the market is not mature enough and that it has a duty to serve, just does not hold water. First, there is ample evidence that the market would support a current divestiture. Witnesses have given examples of billions of dollars of recent transactions, including Duquesne's own. The results as to value have been many times higher than Duquesne's fictional market projections. Duquesne's own advisors believe that now is the time to sell in order to recognize the greatest value. Id.

Second, Duquesne's "obligation to serve" argument is a ruse. Duquesne's early trigger mechanism could lead to a sale in 2001 under Duquesne's proposal, showing that

Duquesne's "service obligation" is nothing more than an excuse for it to collect an artificially high CTC for at least six years. How do market prices which trigger an early sale relieve Duquesne of its obligation to serve? Duquesne could provide for its obligation to serve as part of a current divestiture. In addition, the proposal to refund overcharges to consumers who move from the territory before 2003 does not work. Nor does it address the harm to industry, jobs and business development that will result from a prolonged continuation of the current intolerable rates. Id. at 14-15.

(iv) The DII's Position

DII finds the only major party proposing a different method to establish the market value of Duquesne's units is the Company itself. Duquesne advances three non-market price forecast methods for determining market value asset. All three methods have significant shortcomings and, as such, must be rejected. DII M.B. at 39.

(1) Duquesne Method 1

Duquesne's original proposal with respect to stranded cost valuation is to delay determination of total generation-related stranded costs until 2003. In 2003, an arbitration panel would examine market evidence and establish a value for the Duquesne generating units as of 2005. The Company would then examine the amount of competitive transition charges collected to that point of the transition period and determine how much more needed to be collected to compensate the Company for any additional portion of its "stranded cost." The CTC collection

period would be lengthened or shortened accordingly. Duquesne St. 2 at 40-41; DII M.B. at 39.

The Company's proposal to delay determination of stranded costs until 2003 is inconsistent with the Act and must be rejected. As explained in Section IV.B.3.a, supra, the definition of "stranded costs" clearly indicates a one-time determination of the Company's total stranded costs prior to the phase-in of direct access. Delaying stranded cost determination also does not satisfy the balancing of interests mandated under the Act. 66 Pa. C.S. §2802(8).

> The Company's proposal is primarily one in which risks associated with stranded cost are shifted to the Company's customers and away from the Company's stockholders. Failing to fix a stranded cost recovery level at the beginning of the recovery period leads to substantial uncertainty on the part of the Company's customers, who will be facing unknown CTC charges in future transition period years, as well an uncertain length of time over which such charges will actually be collected. This would result, in my opinion, in an inappropriate regulatory framework for transitioning to retail competition. The Duquesne proposed framework is designed to provide the Company with a risk-free future with respect to stranded cost recovery while exposing its customers to the maximum risk associated with uncertainty regarding future market prices. This is clearly inappropriate and unfair to customers.

DII St. 1 at 24. Under the Duquesne proposal, the utility and shareholders are permitted to remain in the relatively safe position they have been in the regulated environment throughout the purported "transition period." It appears, under the Duquesne proposal, that the only parties subject to risks during the transition period are Duquesne's customers and competitors. DII M.B. at 40.

The uncertainty associated with the Company's proposal will hinder development of the competitive market. Until a precise and definitive level of stranded costs is determined

and CTCs are established, customers will not be able to evaluate options in a competitive market. DII St. 1 at 24. Without a definitive determination, customers will not be able to evaluate whether to remain on the utility's rate cap service or to access the competitive market through an alternative supplier. Such uncertainty discourages competition in the Duquesne service territory in direct contravention of the goals of the Act. 66 Pa. C.S. §§2802(7), 2802(7), 2802(12), 2802(13) & 2804(14). In addition, this uncertainty will not be experienced by ratepayers in other parts of the state, such as PECO ratepayers. Such economic differential is inequitable, unfair and contravenes the stated objectives of the legislation. Id.; §§2802(8) & 2804(14); DII M.B. at 40-41.

Unless a definitive level of stranded costs is set prior to the beginning of the transition period, it will be impossible to know whether the CTC revenue being collected during the transition period will recover revenues in excess of the Company's actual and provable stranded cost. DII St. 1 at 23. The Commission cannot determine whether an overrecovery exists unless a definitive figure is established and CTC revenues projected that can be reconciled with the total figure. Id. In addition, the Commission cannot perform its duty under the Act to reconcile annual CTC revenues with "the annual amortization of transition on stranded costs approved by the Commission" and adjust the CTC based on "underrecovery or overrecovery of the annual amortization amount." 66 Pa. C.S. § 2808(f). It is inappropriate for the Commission to endorse a stranded cost valuation methodology, with such uncertainty as to possible stranded cost overcollection, to the detriment of ratepayers and competitors in the Duquesne service territory. DII M.B. at 41.

Duquesne's proposed use of an arbitration panel is also inappropriate. Duquesne terms the arbitration panel a "market-based approach." Duquesne St. 3 at 3. This categorization is a misnomer. As DII explains, "the only true market-based approach would utilize an asset auction." DII St. 2 at 11. Duquesne instead proposes to have an arbitration panel sit as a supra-administrative body to make the stranded cost determination. Duquesne St. 2 at 14-16. Parties could "provide market price data to the panel," Duquesne St. 2 at 15; the arbitration panel would not be required, however, to provide any other type of participation in the process. See, Id.; See, also, DII St. 1 at 25. Such proposal represents a significant deprivation of interested parties' rights to participate in a critical determination regarding the Act. Id. The minimal participation by interested parties under the Duquesne proposal is a stark contrast to the plentiful procedural due process rights to submit testimony, cross-examine witnesses, and submit briefs and exceptions accorded to participants in a full evidentiary hearing such as in this restructuring proceeding. Even if interested parties were accorded participatory rights in connection with the panel's determination as set forth in the Duquesne proposal, the interested parties will be forced to go through the time and expense of relitigating the stranded cost issue. Such additional burden is unnecessary because, as explained supra, DII has presented a recommendation of Duquesne's stranded cost that can be reasonably relied upon by the Commission. DII St. 1 at 9-13; DII St. 2 at 34-48; DII M.B. at 41-42.

The Duquesne proposal to determine stranded costs by an arbitration panel in 2003 must be rejected. The delay of the determination is inappropriate under the definition of "stranded cost" and does not result in the requisite balancing of interests during the transition to a competitive market. The use of an arbitration panel raises significant due process concerns

for the interested parties. DII submits that the stranded cost determination must be performed in this proceeding and must be based on an objective source such as the DII market price forecast or an immediate divestiture of Duquesne's generation assets. DII M.B. at 42.

(2) Duquesne Method 2

As an alternative approach, the Company is willing to divest 100% of its generating assets in 2003 to establish market value asset. If the Commission does not order divestiture of any portion of the assets or if no bids are received, the market value and stranded costs associated with those assets will be determined by an arbitration panel. Duquesne St. 2-R at 3-4; DII M.B. at 42.

This approach suffers from the same fatal flaws as the original Duquesne proposal. As previously explained, the Act clearly establishes that stranded cost liability must be determined as part of the restructuring proceeding and not delayed until some point during the transition period (such as a divestiture in 2003). 66 Pa. C.S. §2803. The continued uncertainty in this total stranded cost liability caused by the five-year delay makes the Duquesne alternative approach unacceptable. DII St. 1-S at 3. Although a properly conducted divestiture is the most accurate valuation of generating assets, a five-year delay undermines the interests of ratepayers and shareholders. DII St. 1-S at 3. Moreover, the market price and stranded cost analysis presented by DII in this proceeding is an accurate proxy for divestiture results. DII M.B. at 42-43.

(3) Duquesne Method 3

In rejoinder testimony, Duquesne offers a third approach to the stranded cost valuation. Duquesne states that it is willing to immediately divest itself of all or any portion of its generating assets prior to the beginning of the phase-in of direct access. Duquesne St. 1-Rejoinder at 1. An arbitration panel will value any assets receiving no bid or are not ordered by the Commission to be divested. Id. at 1-2. DII agrees that an immediate divestiture will establish an accurate valuation of the generating assets and, as proposed in the rejoinder testimony, establish customers' total stranded cost liability in a one-time determination as part of this proceeding. Id. Yet, the offer to immediately divest is contingent upon the merger between Allegheny Power System and Duquesne being rejected by any of the regulatory bodies whose approval is needed. N.T. at 24. In the event that the merger is approved by the Commission, Duquesne will establish future market value and stranded cost liability based on proposals set forth in that proceeding. N.T. at 25. Those procedures are not available for review and comment in this proceeding. DII M.B. at 43.

If the Commission endorses Duquesne's third option, a full divestiture of all assets would need to occur. If the market value for any asset is determined by an arbitration panel, due process concerns raised supra will still apply. Consequently, in order for the immediate divestiture option to address all of DII's concerns, the Commission must be prepared to encourage an immediate, total and unconditional divestiture. DII M.B. at 43.

The Company also states that its willingness to submit to total divestiture is contingent on the Commission addressing "the generation rate cap issue." Duquesne St. 1-Rejoinder at 2. Specifically, the Company requests a rate cap waiver. N.T. at 55. A waiver

of ratepayers' statutory right to a rate cap for the period while Duquesne is collecting any stranded costs is unacceptable and blatantly unlawful. Ratepayers have a non-bypassable obligation to compensate Duquesne for its qualifying stranded cost under the Act. 66 Pa. C.S. §2808(a). As quid pro quo for this obligation, ratepayers are entitled to rate cap protection on the generation component of rates "for a period of nine years from the effective date of this chapter or until an electric distribution utility is no longer recovering its transition or stranded costs through a competitive transition charge . . . whichever is shorter." 66 Pa. C.S. §2804(4)(ii). The Act requires that ratepayers compensate Duquesne for its qualifying stranded cost (which some ratepayers may not agree with) and the Act requires a rate cap on the generation component (which Duquesne does not agree with). Duquesne cannot re-draft the Act simply because it disagrees with the rate cap concept as set forth in the legislation. N.T. at 127; DII M.B. at 43-44.

Duquesne's proposal to immediately divest all generating assets is acceptable to DII. The proposal appropriately balances the interests of shareholders, ratepayers and the Company. Absent full Duquesne divestiture, DII objects to Duquesne's third alternate proposal and respectfully requests that the Commission rely on the DII market price forecast and stranded cost calculations. DII M.B. at 44; DII R.B. at 22.

(v) HSS/ARI's Position

HSS/ARI argue in assessing Duquesne's claim, and OCA's and DII's price projections as well, it is manifest to examine documents obtained from Duquesne reflecting its, and its consultants, valuations of Duquesne's assets. It also is important to assess those

valuations in comparison to real market valuations reflected by Duquesne's sale of its interest in the Ft. Martin plant and more recent sales of generation assets that show that large capacity generation plants around the country are being sold above net book value. The conclusion to be reached from that examination is that Duquesne has no stranded costs because its facilities would have positive market value if Duquesne would offer them for sale. HSS/ARI M.B. at 52.

The starting point for this analysis is a review of a study that Duquesne itself performed to assess the value of its assets. In that study, Duquesne considered various scenarios involving the possible sale of its generating assets. Duquesne concluded in the study that the "[s]ale of generating assets can add between $500-$750 million in after tax cash for investing." Exh. RBW-3 at 12. Moreover, the same internal study concluded that "deferring tax [consequences] could double those amounts." Id. The study furthermore recognized that the sale of the Cheswick and Elrama units "shows strong economics." Id. HSS/ARI M.B. at 52-53.

Specifically, Duquesne's study found that sale of the Cheswick and Elrama units would yield purchase premiums of $160 million in a base case scenario. Id. at 8. If power sales were to be increased, the purchase premium would rise to $335 million. Id. If sales increased and O&M costs were reduced by one-third, the purchase premium for such a sale was approximated at $460 million. Id. Earnings per share in Duquesne's study would increase by nearly 50% annually by 2003 compared to the business as usual approach. Id. In fact, in the same study, Duquesne calculated that it might capture a "purchase premium" of $733 million in addition to net book value on all of its generating assets. Id. at 10. In terms of percentages,

Duquesne found that it might earn premiums above net book value in a range of 27% to 211%. Id. at 9 and 11. HSS/ARI M.B. at 53.

The general import of Duquesne's own internal assessment of the value sales of its facilities would produce is fortified by studies by its consultants. For instance, Metzler & Associates ("Metzler") performed an asset valuation for Duquesne using Duquesne's power price projections ranging from a worst case of $18-20/mwh to a "most likely case" of $27/mwh to a best case of $35/mwh. Exh. RBW-5 at 2. Using those assumptions, Metzler quoted to Duquesne values as high as $225 million for the Cheswick unit and $150 million for Elrama. Exh. RBW-6 (study dated July 15, 1996). In a subsequent study, Metzler increased its price projections up to $264 million for the Cheswick Unit (compared to net book value of $120 million); $224 million for Elrama (net book value $100 million); Brunot Island $112 million (net book value $26 million); and Phillips $140 million (net book value $78 million). Exh. RBW-7 at 3; Duquesne Statement 2, Exh. DJC-3 at 32-38 and Exh. MKO-1C at 1. In that more recent study, Metzler also indicated to Duquesne that a third-party sale of generation assets presented the "potential to receive [a] better price." Exh. RBW-7 at 4; HSS/ARI M.B. at 53-54.

Thus, Duquesne has received advice from independent consultants hired by Duquesne that a sale of its generating assets would maximize market value. Indeed, Metzler noted that a sale of assets presented a "[h]igher probability of achieving price[s] above book value." Exh. RBW-8 at 4. Similarly, Metzler told Duquesne that the sale of Duquesne's generating assets in a separate "Genco" unit "provides the strategic investor with a much more robust market presence." Id. at 5. According to the study, "[p]roceeds of an asset sale can be used to offset nuclear stranded costs with or without a *Genco*." Id. at 6. Metzler, in fact,

indicated that the value of just four of the Duquesne generating facilities could exceed depreciated net book value by more than $657 million. Exh. RBW-9 at 4; HSS/ARI M.B. at 54.

In addition to the Metzler study, in late November 1996, Duquesne received a study of the value of Duquesne's generating assets from the investment banking firm CS First Boston that Duquesne later hired as its advisor in connection with its proposed merger with APS. Exh. RBW-10; N.T. 275.[80] CS First Boston advised that Duquesne could sell five of its generation plants with a total net book value of $450 million for between $827 million and $1.184 billion - a purchase premium ranging from $377 to $734 million. Exh. RBW-10; HSS/ARI St. 1 at 21, Table III-1; HSS/ARI M.B. at 54.

Another interesting element of the CS First Boston study is that the assumed power price in its leveraged cash flow analyses is 2.6¢/kWh, i.e., $26/mwh. Exh. RBW-10 at 0053855. The projected power price highlights the artificially low 1.816¢/kWh ($18.16/mwh) price that forms the basis for Schnitzer's price projections. HSS/ARI M.B. at 54-55.

Thus, studies performed by and for Duquesne present a far different picture concerning the value of Duquesne's generation facilities than the dismal picture Duquesne presents to the Commission in support of Duquesne's exorbitant and unjustified stranded cost claim. The market value estimate derived by Duquesne, its consultants and financial investors

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[80] Mr. Clayton denied that Duquesne retained CS First Boston as its merger advisor because of CS First Boston's valuation study. Clayton, N.T. 275:16-276:4. However, Duquesne obviously was impressed with the study. It simply is not credible to argue the opposite, i.e., that Duquesne would have retained CS First Boston as its merger advisor even though Duquesne thought CS First Boston's November 1996 valuation study was grossly inaccurate.

also is substantially higher than the market valuations derived from OCA's and DII's computer-generated price forecasts as well. But while Duquesne's, OCA's and DII's computer-generated price forecasts only can be verified on a prospective basis as compared to actual future market prices, there is independent evidence today to verify and corroborate Duquesne's internal conclusions and the conclusions of Metzler and CS First Boston. HSS/ARI M.B. at 55.

The first element of such evidence is Duquesne's own sale of its interest in the Ft. Martin plant. That was a real market transaction, and Duquesne's President and CEO acknowledged that APS' purchase of that interest established the fair market value of the plant at the time of the sale. N.T. 71:15-20. Duquesne sold its 50% interest for $169 million – four and a half times the net book value of $37 million. HSS/ARI St. 1 at 22. Thus, the transaction reflects actual market evidence of a buyer paying a substantial premium for one of Duquesne's own generation assets, an indisputable fact that slightly predates but, nonetheless, is consistent with Duquesne's, Metzler's and CS First Boston's conclusions. HSS/ARI M.B. at 55.

Further, there is more recent evidence that corroborates their conclusions that the sale of generation assets will occur at multiples of net book value. For instance, as Dr. Weisenmiller discussed in his direct testimony, the New England Electric System ("NEES") recently sold to U.S. Generating Company generation facilities at a price of $1.59 billion – approximately $500 million more than its $1.1 billion book value, or approximately 1.4 times net book value. HSS/ARI St. 1 at 146. Similarly, Pacific Gas & Electric Company ("PG&E") and Southern California Edison Company ("SoCal Edison") recently sold generation facilities for approximately $500 million and $1.1 billion, respectively. HSS/ARI St. 1S at 7. PG&E's sale was consummated at approximately 1.32 times net book value, and SoCal Edison's facilities

sold at 2.65 times net book value. Similarly, Central Maine Power recently concluded the sale of facilities at a substantial premium above net book value.[81] Thus, this actual market evidence fully corroborates Metzler's and CS First Boston's conclusions that there is a market that is willing to pay multiples of net book value to purchase existing generation units. HSS/ARI M.B. at 55-56.

(vi) The PRA's Position

The PRA contends Duquesne ignores the reliability of historic market prices when they do not foster its stated goal of inflating stranded costs. For example, Duquesne fails to recognize the "other evidence of market value" arising from the sale of its ownership interest in the Ft. Martin plant. It claims that the Ft. Martin sale reveals how price forecasts can become outdated. The Ft. Martin sale supports the contrary proposition that it is an "auction" of power which reflects how unreliable so-called market prices are when they are narrowly defined, limited to one utility and subject to the parameters set by the selling utility. The Ft. Martin sale undercuts Duquesne's major assumption in this case in that its limited power auction RFP is not indicative of future market prices. PRA R.B. at 13-14.

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[81] See, *Utility FPL Agrees to Purchases to Gain Presence in the Northeast,* Wall St. J., January 7, 1998, at B12. Section 5.408 of the Commission's regulations permits the Commission or the presiding administrative law judge to take official notice or judicial notice of facts. 52 Pa. Code §5.408(a); See, also, Tilghman v. Pennsylvania, 27 Pa. Commw. 484, 487, 366 A.2d. 966, 967 (Pa. Commw. Ct. 1976), aff'd, 473 Pa. 319, 374, A.2d. 535, (Pa. 1977) (authorizing judicial notice of newspaper articles).

(d) **Conclusions**

(i) **Duquesne's Proposal**

The Company urges the Commission to find that Mr. Schnitzer's low price forecast is the most reliable forecast because it relies, to the extent possible, on actual market data; it does not include unsupported assumptions regarding capacity requirements; and it is virtually identical to Mr. Smith's forecast for all years and to Mr. Falkenberg's forecast post-2005. Duquesne St. 3-R at 19-27. Duquesne M.B. at 34.

(ii) **The OTS' Position**

The OTS recommends the Company's delayed entry portfolio should be used to determine the market value of Duquesne's generation plants, if a one-time administrative evaluation as of January 1, 1999 is required. This portfolio provides for a plant margin between the low and high market value portfolios, which provides for a fair and balanced estimation of the market rate. The assumption that new combined cycle capacity would become economic after 2006 is reasonable and supported by the record. OTS M.B. at 28.

However, OTS continues to favor a deferral of generation plant valuation until 2003, unless an immediate auction is held. Actual market prices are far superior to projections in terms of accuracy – which is a stranded cost requirement under 66 Pa. C.S. §2803. OTS M.B. at 28-29.

(iii) The OCA's Position

The OCA submits that Mr. Smith's market price projections and the resulting market revenue is reasonable and is supported by the evidence. OCA M.B. at 38-39.

(iv) The City's Position

The City argues Duquesne has presented absolutely no reliable evidence of market value. It chose not to rebut the serious errors and flaws in its direct case and instead to present an illusory, self-serving "proposal" to divest generating assets. It was incumbent on Duquesne to present a plan by September 1, 1997 and to carry its heavy burden of proof that it will have stranded costs and the fair and reasonable amount. Duquesne has not done so. In fact, it agrees that a possible outcome of its own projections is a large stranded benefit. There is only one consistent theme to Duquesne's plan - overstate stranded costs, delay competition as long as possible and ignore the interests of the ratepayers and the growth of the Pittsburgh region. City M.B. at 15.

(v) DII's Position

DII claims it presents the only accurate and reliable valuation of Duquesne's stranded generation costs in this proceeding. The DII analysis is based on the same methodology endorsed and adopted by the Commission in the PECO restructuring proceeding. DII's market price forecast is based on a model designed to simulate a competitive market, using reasonable inputs and obtaining plausible results. The DII analysis fairly balances the interests of all parties in making its recommendation. DII M.B. at 44.

Duquesne fails to offer any systematic and reliable valuation of its generating assets. DII submits that the Company fails to fulfill its burden of proof based on substantial evidence of the market value of its generating assets. Proposals to delay the valuation must be rejected as inappropriate under the Act and contrary to established Commission precedent. The Duquesne offer to immediately divest its generating assets is acceptable only if that divestiture is full. Anything less than full divestiture raises significant due process concerns. DII M.B. at 44-45.

Based on the foregoing arguments, DII respectfully requests the Commission adopt the DII market value recommendation. Based on the DII analysis, Duquesne's units have a market value of negative $16.742 million. DII St. 2, Exh. RJF-5a. This amount represents the known and measurable value of Duquesne's generating units in the competitive market. DII M.B. at 45; DII R.B. at 22-23.

(vi) HSS/ARI's Position

HSS/ARI note in performing his analysis in this case, Dr. Weisenmiller compared Schnitzer's projected market price projections with a number of other projections. HSS/ARI Exh. RBW-57. In particular, Dr. Weisenmiller compared Schnitzer's price projections to price projections by:

- West Penn in its restructuring filing;
- West Penn in its analysis of its purchase of Duquesne's interest in Ft. Martin;
- CS First Boston and Metzler in their valuation assessments of Duquesne's generation assets;

- EIA, an energy-only market line prepared earlier this year; and
- William Hieronymus for PECO both as originally stated for PECO and adjusted to ECAR using a transmission rate of $6/mwh.

With the exception of the price projection filed by Duquesne's proposed merger partner, West Penn, all of the other projections exceed Duquesne's. Exh. RBW-57. However, as is shown in Section 3(b) above, Duquesne's price projections have no foundation, in fact. Further, OCA's and DII's computer-generated alternative calculations suffer from many of the same foundational flaws. In any event, there is no reason to rely upon any of those forecasts in this case. The best evidence of the market value of Duquesne's generation-related assets comes from Duquesne's financial and strategic planning documents, the valuations performed by Metzler and CS First Boston, and the real market evidence that corroborates the basic conclusions of those valuations, i.e., that Duquesne's generation assets have market value at some multiple of net book value. Thus, it is appropriate to conclude that the evidence shows that Duquesne's facilities have a value in excess of Duquesne's net book investment such that Duquesne has no stranded costs. However, if there is a requirement to derive a stranded cost calculation using a specific price forecast, HSS/ARI submit that the price projection that should be used is that of CS First Boston. Notwithstanding Mr. Clayton's disclaimer, Duquesne must have had faith in the analysis, otherwise it is implausible that Duquesne would have hired CS First Boston as its merger advisor. Thus, if the CS First Boston price projection is used, Duquesne's generation assets would have a positive market value of $481 million (1998$). Exh. RBW-57. That valuation negates Duquesne's stranded cost claim in its entirety, inclusive of its claim relating to regulatory assets. HSS/ARI M.B. at 57.

(e) **Recommendation**

In the event a merger between DQE, Inc. and APS is not consummated or the Commission decides a final administratively determined methodology for valuation of stranded costs must be found in this proceeding, I recommend the approach of the OCA, as modified elsewhere in this decision. The determination of the market value of the Company's generating facilities, in the absence of a sale of those facilities, involves an estimation of the net present value of the net margins to be generated by those facilities. The Company and the OCA both utilize a net margin analysis to determine the market value of Duquesne's generating facilities. The difference in results – $272 million – produced by those analyses is primarily attributable to two factors: (i) different market price projections and (ii) assumptions regarding treatment of generating facilities at the end of their useful lives (life extension). This latter issue will be addressed, infra.

The OCA's approach to valuing owned-generation stranded costs was specifically endorsed by the Commission in PECO Energy, Slip Op. at 90, finding that OCA witness' approach "best balances all of our considerations." In particular, the Commission found the OCA witness Smith's analysis of market value the most credible, convincing, and reasonable and was truly an "objective" analysis as compared to the other market value witnesses in the case:

> Though there is no single proposal that we find completely convincing on every component of its analysis, we adopt the testimony of OCA witness Smith as the most reasonable determination of future market value in the record and therefore determine a market value of PECO's stranded generation plants of $3.96 billion as of 12/31/98. Witness Smith's testimony is the most credible, and least criticized of any of the other market value witnesses, and produces a result approximately midway between the other two most credible models. We are also convinced that witness Smith performed an objective analysis of the issues in this

proceeding, a task that the Commission believes no other party truly performed.

PECO Energy, Slip Op. at 88.

The Commission also concluded the ENPRO model Mr. Smith used "fairly represents several other important matters such as unit commitment, NUG operations, fuel prices, imports and exports, and heat rates." Id. at 89. The Commission also noted its specific agreement with Mr. Smith's "approach to fuel use by dual fuel units, the cost of new generation, and the use of average heat rates." Id. at 90. The unrebutted assertion of the OCA here is that it uses the same model in this case as in PECO Energy. Also, as in PECO Energy, none of the analyses proposed in this case escape criticism. However, the weight of the evidence appears to favor the OCA's approach. For that reason, I recommend its use in this case to the Commission.

3. Other Factors Affecting Market Value/Stranded Costs

(a) Life Extension

(i) Duquesne's Position

Duquesne notes the OCA makes projections assuming that Duquesne's coal plants are "life extended" an additional 15 years. OCA St. 1 at 35-38; OCA Exh. MIK-8. Using this adjustment, the OCA's Mr. Kahal creates nearly $200 million in additional market value. OCA St. 1 at 38; Duquesne St. 3-R at 23-24. Mr. Kahal's adjustment is unsustainable. First, it is not based on a life extension study of Duquesne's units; it is based on studies by other utilities (PECO Energy and APS) in other cases of their plants. OCA St. 1 at 35, 37. These estimates cannot possibly support a "known and measurable" calculation for Duquesne. As the

Commission held in PECO Energy (as to fossil decommissioning), such a forecast of "[p]rospective...expenses [and revenues]...without a specific plan to [life extend] a particular plant at a particular time and in particular manner" cannot satisfy the known and measurable standard. PECO Energy, Slip Op. at 92. Second, OCA's market price witness, Mr. Smith, failed to support the market price projections used by Mr. Kahal for his analysis. OCA Exh. MIK-8 at 6.[82] Third, Mr. Kahal's assumption that current technology will continue to set market prices nearly 40 years from now is "somewhere between silly and reckless," as Mr. Schnitzer testified. Duquesne St. 3-R at 22.[83] In fact, Mr. Kahal tacitly agreed: "[i]n reality, the Company would defer life extension investment decisions until the years shortly before book retirement date[s] due to the inherent uncertainty of making such decisions this far in advance." OCA St. 1 at 35-36 (emphasis added). In sum, Duquesne cannot conceive of an adjustment that is less "known and measurable" than Mr. Kahal's life-extension projections. Duquesne M.B. 34-36.

(ii) The OCA's Proposal

The OCA notes the Company calculates market revenues realized over the book lives of its generating units. As Mr. Kahal notes, for the Company's major coal-fired generating plants, this assumes a "useful life of approximately 40 years." OCA St. 1 at 34. In part, this

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[82] Mr. Kahal simply "escalated" Mr. Smith's market price forecast over an additional 20-year period, OCA St. 1 at 37, without any concurrence from Mr. Smith that such a projection was reasonable. Mr. Smith's sponsored market price projections terminate in the year 2015, OCA Exh. DCS-4, while Mr. Kahal's extend until 2034. OCA Exh. MIK-8 at 6.

[83] Notably, Mr. Smith did not defend such an assumption and neither did Mr. Kahal on surrebuttal. OCA St. 1-S; OCA St. 2-S.

is because Duquesne believes that addressing life extension at this time would be premature and Duquesne would reserve judgment on this issue until its proposed "final valuation" in 2003. Id. at 35. For this reason, Duquesne was unable to provide any studies regarding life extending its generating units, but has indicated that they would be prepared and made available for the 2003 valuation. Id.; OCA M.B. at 39.

OCA witness Kahal testified that while the Company's failure to perform life extension studies is "understandable if the purpose is merely one of reporting an integrated resource plan," its position is not reasonable in the context of a stranded cost study intended to provide the basis for competitive transition charges. Id. at 36. As Mr. Kahal stated, the Company's study must incorporate all reasonable mitigation measures to reduce costs or enhance the plant revenue stream. Id. Furthermore, while new environmental regulations may affect the attractiveness of life extension, it is one-sided to arbitrarily assume that these requirements would prevent life extension for every unit. Id. Instead, since it is common to maintain major coal-fired units in operation beyond their 40-year book lives, it is necessary and appropriate to take into consideration life extension of units as a means of mitigating stranded costs. As Mr. Kahal testified:

> The Company's position is not reasonable in the context of a stranded cost study intended to provide the basis for customer transition charges. Such a study must incorporate all reasonable mitigation measures to reduce costs or enhance the plant revenue stream, and life extension is a potential mitigation which Duquesne should consider.

Id.; OCA M.B. at 39.

Moreover, even were the Commission to accept Duquesne's final valuation approach, as Mr. Kahal pointed out, life extension benefits must be considered at this time

because Duquesne's stranded cost analysis is intended as a "test" of Duquesne's seven-year rate cap plan. Id. Ignoring the likelihood of life extension means that this test is biased and distorted. Id. OCA would emphasize that PECO Energy included life extension for three coal plants in its stranded cost analysis. Id. at 35, 37. These life extensions were incorporated in the OCA analysis in PECO, which was adopted by the Commission. OCA M.B. at 39-40.

Because Duquesne has done no study, detailed estimates for life extending Duquesne's coal plants are not available. In the absence of this information, OCA witness Kahal used information from the PECO case and the West Penn case (Schedule MIK-7) to determine that a reasonable estimate for the cost of life extending a coal-fired power plant is approximately $200/kW in 1997 dollars. Id. at 37. Mr. Kahal utilized this figure as a "base case" cost; however, in light of environmental uncertainties and the possibility of other unknown costs, Mr. Kahal also considered a capital cost of $300/kW in 1997 dollars. Id.; OCA M.B. at 40.

Schedule MIK-8 provides Mr. Kahal's screening study for each Duquesne coal unit, which include Sammis, Cheswick, Eastlake, and each of the three Mansfield units. This study shows the life extension benefits for an assumed 15-year extension, based on OCA witness Smith's market price projections, fuel costs and non-fuel O&M costs and Mr. Kahal's estimate of life extension costs. Id. Life extension is shown to be cost-effective for all units at a capital cost of $200/ kW but cost ineffective for Eastlake and Mansfield 1 at $300/kW. Id. Using these figures, Mr. Kahal determined a reasonable range of life extension net benefits to be $171 million to $210 million, present valued at January 1, 1999, and, to be conservative, he utilized the lower end net benefit as his adjustment to Duquesne' stranded cost. Id.; OCA M.B. at 40.

The Company did not present specific rebuttal to Mr. Kahal's testimony with respect to life extension. OCA submits that Mr. Kahal's adjustment to reflect economic life extension of units in the amount of $170.72 million is appropriate and should be adopted. OCA M.B. at 40.

The OCA notes the Company criticizes OCA witness Kahal's life extension analysis, contending that it produces results which are not "known and measurable" and noting that OCA witness Smith did not specifically indicate concurrence with this analysis or provide market price projections over the life extension period. Duquesne M.B. at 34-36. Of course, the Company failed to ask Mr. Smith whether he concurred with this analysis and it is thus disingenuous to suggest that he didn't. OCA R.B. at 11.

The Company also argues that OCA's analysis is not based on a life extension study of Duquesne's units. Duquesne M.B. at 34-35. The problem here is that the Company has not performed such an analysis even though it would have been appropriate to do one for purposes of determining stranded costs. OCA M.B. at 39. For this reason, Mr. Kahal performed his own analysis using reasonable assumptions. These included reasonable assumptions regarding the escalation of market prices and reasonable assumptions regarding the cost of life extension. OCA R.B. at 11.

In the PECO case, PECO Energy projected, and the Commission adopted, life extensions for three coal plants, and it was the study in that case which formed the basis for Mr. Kahal's adjustment here. The Company failed to provide any substantive response to OCA's position on this issue on the record of this proceeding. OCA R.B. at 11.

(iii) The City's Position

The City agrees with the OCA on this issue. City M.B. at 15.

(iv) HSS/ARI's Position

HSS/ARI argue one factor that caused Duquesne to overstate its stranded cost exposure was that Duquesne failed to consider the potential benefits that could result from extending the life of certain plants to create a positive cash flow. It follows as a matter of logic that when low cost plants are operated over longer periods, their below-market costs can offset greater amounts of above-market prices. HSS/ARI St. 1 at 66-67. Thus, sales of electricity from competitive plants (i.e., capable of producing electricity at below market clearing prices) can offset sales from noncompetitive plants (those capable of producing electricity only at above market clearing prices). Id. at 67. Accordingly, the longer competitive plants operate, the greater the offset against stranded costs. HSS/ARI M.B. at 58.

Notwithstanding that indisputable fact, in performing its stranded cost calculation, Duquesne assumed that when a facility's costs are fully recovered for ratemaking purposes, the facility will cease operation regardless of the value of its power. Id. at 67. Obviously, many plants continue to operate after the date of full recovery of depreciation. Accordingly, it is not reasonable for Duquesne to calculate its stranded costs based on a scenario that contravenes operating its facilities in a prudent, economically rational fashion. Id. at 67; HSS/ARI M.B. at 58.

Moreover, with respect to operation of a plant after it has been fully depreciated, the portion of the plant's revenue dedicated to return of invested capital could be devoted to

other purposes. Id. at 68. As a result, plants - both competitive and non-competitive - could be operated at lower operating costs such that noncompetitive plants may, in fact, become competitive and competitive plants would become more competitive, i.e., more effective at offsetting stranded costs. Id.; HSS/ARI M.B. at 58-59.

Nonetheless, Duquesne's stranded cost claim fails to take into account such offsets. For example, Duquesne's Sammis plant could generate $30.9 million in 2010 over and above its direct operating costs assuming Duquesne's "high" market line case. Id. Nevertheless, Duquesne presumes the plant will be shutdown in 2010. If the plant were to continue to operate, its operating margin offsets additional amounts of stranded costs. Id. at 68. Similarly, Duquesne's presumptions include shutting down the Eastlake plant the year after that plant contributes more than $15 million in mitigation.[84] HSS/ARI M.B. at 59.

HSS/ARI suggest that the proper indication of whether a power plant should be retired should be based on the unit's going forward costs. Id. at 69. If the unit can recover its variable and fixed costs, including fuel O&M expenses, administrative and general costs, capital additions and taxes from the market value of its power, the plant should continue to operate. Otherwise, it should not. Based on this analysis, Duquesne is prematurely retiring numerous units. As a consequence, its stranded cost claim is overstated and must be adjusted to reflect the offset associated with continued operation of its generating facilities. HSS/ARI M.B. at 59.

[84] Another benefit from Duquesne's continued operation of the plants would be a deferral of the date when Duquesne must pay decommissioning costs - thereby reducing the net present value of that obligation. HSS/ARI St. 1 at 71.

(v) **The PRA's Position**

The PRA explains extension of the operating lives of generating plants beyond their "book or financial life" is common in the electric industry. OCA St. 1 at 35.. The fact that Duquesne has failed to consider this factor in its stranded investment analysis is not a basis for its rejection. The Act requires that the Commission consider all possible mitigation strategies in determining stranded investment. Life extensions of existing plants is a form of mitigation of the level stranded investment. Even under the Duquesne scenario of "testing" as of 2005 requires a review of the possibility of extending the lives of generating plants that are under review. PRA M.B. at 49-50.

A reasonable estimate of the cost of extending the life of a coal plant has been provided by the OCA. In particular, the OCA has calculated a "base case" cost of $200/kW and a $300/kW capital cost in light of environmental uncertainty and the possibility of other future costs. OCA St. 1 at 37. The OCA analysis reveals that all generating units analyzed can be economically life extended at $200/kW capital costs although ineffective for only two units at $300/kW. Id. at 38. Thus the range of NPV of life extension is $200 to $171 million as of January 1, 1999. The OCA conservatively selected the $171 million amount. This position should be adopted by the Commission. PRA M.B. at 50.

When low cost plants operate over longer periods of time, their below market costs can offset greater amounts of above market costs, i.e., offset stranded investment. Duquesne has both competitive and noncompetitive plants. Longevity of plant operation reduces the level of stranded investment. Duquesne erroneously assumes that its plants will cease operation when the cost of investment has been fully recovered for ratemaking purposes. HSS

St. 1 at 67. Duquesne must economic retirement. That is upon full depreciation, currently noncompetitive plants may competitive prospectively once their former depreciation expense is used to offset other operating costs. Id. at 68.; PRA M.B. at 50-51.

The PRA notes Duquesne's claim that it is inappropriate to assume life extensions of its coal-fired plant. It claims this is deficient because the life extensions are not based upon a study of Duquesne's units but rather based upon studies of other utilities. It would be inappropriate, however, to rely upon a Duquesne specific study as it would again narrowly define the market. A future retail generation market will be regional and multi-Reliability Council in nature (e.g., PJM-ECAR). The statute requires an affirmative mitigation standard for electric utilities. This includes life extensions. Duquesne recognizes the folly of its own argument when it agrees that life extensions should be studied at the time it wishes to establish stranded costs, i.e., a future date. Thus it tacitly concedes that it is appropriate to analyze life extension at the time at which stranded costs are set. PRA R.B. at 14-15.

(vi) Recommendation

The Company calculates market revenues realized over the book lives of its generating plants. It is unreasonable to assume the physical life of a stranded asset equates exactly with its book life. Therefore, some "life extension" must be attributed to that asset. Duquesne apparently believes addressing this issue in this proceeding is premature and should be reserved until its proposed "final valuation" in 2003. However, the issue of mitigation of stranded costs must be addressed now, 66 Pa. C.S. §§2804(4)(v) & 2808(c)(4), unless there is a divestiture of generating assets as discussed, supra. Since the OCA provides the only credible

evidence on this subject in this proceeding, I recommend the Commission adopt the OCA's adjustment of $170.72 million to reflect an appropriate economic life extension for these assets.

(b) Plant Shutdowns

(i) Duquesne's Position

The Company notes several witnesses suggest that Duquesne should permanently[85] shut down certain generating stations. OCA St. 1 at 24; HSS St. 1 at 70-71. The issue arises because, under Mr. Schnitzer's low market price forecast, some of Duquesne's units have "negative" operating margins – i.e., they receive less revenue than it costs to operate them. Compare, Duquesne Exh. DJC-20 at 2 with Id. at 18 and Id. at 34. While this intuitively supports a shut down decision, it is not a complete analysis. As several Duquesne witnesses explain, there are unavoidable costs (e.g., property taxes and labor costs) that Duquesne will incur even if the plants are shut down. Duquesne St. 2-R at 13-14; Duquesne St. 3-R at 11-12; Duquesne St. 4-R; Duquesne St. 9-R at 19-22; Duquesne St. 10-R at 2-7; Duquesne St. 11-R at 10-16.[86] The OCA's Mr. Kahal did not contest the accuracy of this evidence, but rather

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[85] Initially, the OCA proposed a "temporary" shutdown of the Cheswick plant. OCA St. 1 at 24-25. But this "assume[d] that the Cheswick unit can be placed in reserve for free until 2006, at which point it can be reactivated at no cost." Duquesne St. 3-R at 25 (emphasis added and in original); See, also, Duquesne St. 10-R at 2-7. In surrebuttal testimony, Mr. Kahal withdrew the proposal, acknowledging "the Company's legitimate point that there would be shutdown and restart costs (and ongoing caretaker costs) associated with a shutdown." OCA St. 1-S at 13.

[86] Once these costs are taken into account, the only plant that appears to be uneconomic is Elrama; however, that plant is needed for transmission system reliability and cannot be shut down without construction of system enhancements. Duquesne St. 9-R at 19-22.

asserted that "there is not adequate time to investigate" it. OCA St. 1-S at 11.[87] In any event, Duquesne has committed to file a detailed study regarding potential plant closures in 1998 and allow "the Commission [to] make the determination of whether any units should be shut down." Compare, Duquesne St. 1-R at 24-25 with OCA St. 1-S at 8; HSS St. 1-S at 36. Duquesne M.B. at 37.

(ii) The OCA's Position

The OCA notes in its direct case, the Company set the market value of generating facilities to $0 (excluding decommissioning) if the plant could not provide any net operating margins over the life of the plant. Duquesne Exh. DJC-3 at 44; OCA St. 1-S at 11. Consistent with this approach, OCA witness Kahal's stranded cost analysis produces a $0 market value for all of the Company's nuclear plants and several of the coal plants. OCA St. 1 at 24 & Sch. MIK-1 at 2. Additionally, for one coal plant - Cheswick - Mr. Kahal initially determined that it would be most economic if the plant were temporarily shutdown and then restarted. Id. at 24-25. Mr. Kahal explained the reasons for assuming a zero dollar value for these units:

> A negative net present value result must be treated as zero, since to do otherwise would assume a negative market value for the unit. A negative result, however, does not necessarily mean that the

[87] Mr. Kahal also suggested that this evidence constituted a significant change of position from the evidence in Duquesne's case-in-chief. OCA St. 1-S at 11. This fails to recognize that Duquesne's case-in-chief did not propose a "one-time" determination of stranded costs as of January 1, 1999 and, hence, no such calculation was required. Indeed, Duquesne provided only an estimate of stranded costs as of December 31, 2005, which did not show such plants to be uneconomic for the post-2005 period. Duquesne St. 2-R at 14; Duquesne Exh. DJC-21. It was only in response to intervenor, including OCA, claims that Duquesne "must" conduct a one-time calculation as of January 1, 1999 that this evidence was introduced. Duquesne St. 2-R at 14.

> plant should be retired. It may be economical to continue to operate the plant if operating expenses can be reduced and/or if the plant can operate at higher output levels than included in Mr. Smith's analysis. Moreover, if projected early year losses are substantial but later year margins are positive, it may make sense to temporarily shut down the plant and restart it when market conditions warrant a few years hence. This might be an effective mitigation strategy.

Id. For purposes of determining costs that would be "stranded" as of January 1, 1999, it makes no sense to include future operating losses that have not been incurred and indeed will not be incurred in any reasonable economic scenario. OCA M.B. at 40-41.

In its Rebuttal testimony, the Company modified its analysis, indicating that the economics of retiring units is a complicated issue and proposing to submit a detailed study on, or before, January 1, 1999. Duquesne St. 1-R at 24. The Company contends that when "unavoidable costs" are considered, Perry, Beaver Valley Unit No. 2 and Cheswick should not be shut down at this time. Duquesne St. 2-R at 37.[88] The Company's analysis shows, however, that after consideration of "unavoidable costs," the Elrama unit is not economic. Id. While Elrama produces net negative margins after consideration of all costs, Duquesne contends that the impact of closing Elrama on the transmission system must be considered. Id. at 37-38; OCA M.B. at 40-41.

While OCA is not recommending the retirement of any generating units, especially in the absence of an analysis of the economics of doing so, Duquesne's failure to address these operating losses prior to its Rebuttal case and its failure to study its ability to reduce or avoid

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[88] To reflect these "unavoidable costs," which are, in general, allocated A&G costs which the Company claims could not be reduced, the Company has made a new claim for "Costs Independent of Operation," which are discussed below.

these operating losses is problematic in evaluating the Company's stranded cost claim and its rate cap plan. OCA St. 1-S at 6-8. As OCA witness Kahal explained:

> Aside from the October update revisions to cost data, the existence of these operating losses and the economic viability of its generating units was known to Duquesne well before it filed its case on August 1, 1997. Duquesne made a conscious and deliberate decision not to address this problem and not to reveal the operating losses, instead burying the losses within its financial projections.
>
> After the issue of unnecessary operating losses was raised by the OCA (and others), Duquesne then proceeded to introduce in rebuttal cost data indicating that some of the operating losses may be unavoidable when there is no realistic opportunity to analyze and study those data. Moreover, conceding that some of the losses may be avoidable, Duquesne agrees to study the issue after this proceeding is over. Since avoidance of operating losses is an issue of mitigation, I believe that Duquesne has an obligation to address the issue in this proceeding, not study it at some future time. The lack of clear evidence on this issue is one reason why the rate cap plan cannot be accepted.

Id. at 8. OCA submits its approach of setting the plant margins of these units to $0 (excluding decommissioning) is reasonable and should be adopted. The Company's specific claims regarding its "unavoidable costs" of operating these units will be discussed below. However, in order to reduce controversy and to recognize that there would be shutdown and restart costs (and ongoing caretaker costs) associated with the Cheswick plant if it were to be temporarily shut down, Mr. Kahal modified his position to assume continued operation of that unit with losses, rather than temporary shutdown. OCA St. 1-S at 13-14. Since life extension of that unit still produces overall plant margin, operations at the plant should be maintained for purposes of calculating stranded costs. OCA M.B. at 41-42.

(iii) The City's Position

The City notes Duquesne's plan does not call for shutting down uneconomic power plants in an effort to mitigate stranded costs, even in instances where to do so would save its customers hundreds of millions of dollars. The fact that Mr. Marshall has proposed a 1998 shutdown study indicates that Duquesne has ignored its duty to mitigate stranded costs. Shutdown issues should have been addressed in Duquesne's plan and not been put off to be the subject of a later study proposed in rebuttal testimony. This observation again speaks volumes about Duquesne's motives and the anti-competitive mindset of its management. City M.B. at 16.

(iv) HSS/ARI's Position

HSS/ARI argue several of Duquesne's facilities, i.e., the Elrama, Brunot Island and Perry Units, should be retired immediately. By comparing the data derived from HSS/ARI Exhibit RBW-12 ("To Go Cost of Generation") and Duquesne Exhibit MMS-5, Dr. Weisenmiller determined that the costs of operating these plants exceed the going forward costs. HSS/ARI St. 1 at 70-71. Stated otherwise, based on the going forward costs less fuel related expenses (including emissions), variable and fixed O&M, capital additions, and an overhead allocation, Duquesne's assessments of the value of power between 1999 and 2005, it is not economically favorable to continue to operate these named facilities. Id. Accordingly, those units should be retired immediately. The effect of those retirements would be a further reduction to Duquesne's stranded cost claim. HSS/ARI M.B. at 60.

(v) Recommendation

I agree with the Company and the OCA that there is inadequate time in this proceeding to investigate the feasibility of any recommendation to shut down any of Duquesne's power plants. Therefore, I urge the Commission to adopt the Company's commitment to file a detailed study regarding potential plant closures by December 31, 1998 and thereafter, allow the Commission to determine whether any units should be shut down.

(c) Productivity Gains

(I) Duquesne's Position

The Company notes the OCA proposes to increase the market value of Duquesne's plants by $13 million to reflect estimated "productivity gains." OCA St. 1-S at 14; OCA St. 1 at 29-34. HSS proposes that, in setting any CTC, the Commission should assume cuts in operating and capital expenditures of between 10% and 20%. HSS St. 1 at 64; Duquesne M.B. at 37.

Each proposal must fail because it is not based on any study of the efficiencies that could be achieved given Duquesne's particular assets and workforce. OCA St. 1 at 33; HSS St. 1 at 64. Each avoids addressing the significant cost savings and operating improvements already made by Duquesne and the further savings ($25 million annually) projected for the future. Duquesne St. 1 at 21; Duquesne St. 10 at 5-6, 9-10; Duquesne St. 11 at 3-7. Each fails to consider the additional savings ($500 million on a nominal basis) that Duquesne's expects to achieve through the merger. Duquesne St. 1 at 6; N.T. 564-66. In short, the assumption that substantial additional savings can be achieved has no factual basis, as Duquesne's witnesses

explained in detail. Duquesne St. 10 at 6-7; Duquesne St. 11 at 5-6; Duquesne St. 10-R at 9-10; Duquesne St. 9-R at 12-13; Duquesne M.B. at 38.

(ii) The OCA's Position

The OCA notes in developing the market value of generating units, Duquesne developed budget figures for non-fuel O&M expense for the transition period and escalated those at Company's assumed rate of inflation of 2.5% thereafter. OCA St. 1 at 33. The Company also took its A&G costs assigned to generating units and merely escalated them at its general inflation rate of 2.5%. Id. OCA M.B. at 42.

While OCA agrees with the Company that escalation of these costs is appropriate, OCA witness Kahal testified that the transition to a competitive environment will also result in productivity gains, reducing both the Company's non-fuel O&M and its A&G costs. As Mr. Kahal explained, increases in productivity and efficiency are central to the move to competition:

> Certainly, one of the primary reasons of moving from a system of regulated monopoly, subject to cost-plus pricing, to competition is the belief that competition will motivate new efficiencies and cost control benefits not attainable under regulation. Moreover, such efficiencies are not merely a one-time or episodic effort at cost control (e.g., a utility downsizing initiative at a given point in time) but will be continual. Once deregulated, the owners of generation assets will be seeking ways of controlling costs and improving productivity on an ongoing basis.

OCA St. 1 at 29. OCA M.B. at 42-43.

While the Company, in its budget figures, has reflected some efficiencies as a result of work force reductions until 2002, OCA witness Kahal testified that there should be some additional efficiency gains after the first few years of retail competition. Id. at 33. Mr.

Kahal estimated a 1.0% per year gain in productivity beginning in 2003 and extending for ten years, with the savings capped at 10% and held constant over the remainder of the study period. Id. In support of this estimate, Mr. Kahal cited the analysis of the Staff of the Federal Energy Regulatory Commission which conducted an analysis of utility industry efficiency gains resulting from the introduction of wholesale competition from transmission access. Id. at 33.[89] OCA M.B. at 43.

In performing his analysis, Mr. Kahal applied this productivity adjustment to the Company's non-fuel O&M and A&G expenses for those plants with positive plant margins. Id. This analysis results in savings capped at approximately 10% in 2012, which are held constant over the remainder of the study period, as shown on Mr. Kahal's Schedule MIK-6.[90] Id. at 33-34 & Sch. MIK-6. The result of this adjustment is not a decrease in expenses, but an increase

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[89] That study showed savings ranging from $3.8 to $5.4 billion per year, largely related to savings of fixed O&M at existing plants. Id. Additional cost savings are expected to come from improved unit heat rates and plant availability. Id. Overall, the FERC savings estimate equates to a 15% reduction in industry-wide (generation) fixed O&M costs. Id. The FERC suggests that an even higher level of savings, about 25% should be considered. Id. Mr. Kahal also relied on a recent study conducted by the U.S. Department of Energy (DOE) which provides projections of the rate impacts associated with the introduction of retail access nationwide. That analysis assumed that non-fuel O&M costs for existing power plants would decline by 25% due to the onset of retail competition, with a "high efficiency" scenario inducing savings of 40%. Id. Mr. Kahal also noted that the Maine PUC, in 1995, approved an incentive regulation plan for Central Maine Power Company, which includes a price cap formula that assumes a 1.0% per year productivity gain.

[90] In his Rebuttal testimony, Company witness Karl suggested that Mr. Kahal was attempting to impose a 40% reduction on these costs. Duquesne St. 9-R at 12. In his Surrebuttal testimony, Mr. Kahal explained that this is not the case and that his analysis produces only "a very modest adjustment amounting to only 5 percent of projected fixed O&M and A&G costs" for the three plants for which he made adjustments. OCA St. 1-S at 14. As noted above, no adjustments were made for plants with negative margins, including all of the Company's nuclear plants. Id.

in such expenses of 1.0% less than the general inflation rate used in the analysis. Id. This results in an increase in plant margins at January 1, 1999 of $13.04 million. OCA St. 1-S at 14 & Sch. MIK-6 (December 1997 Update); OCA M.B. at 43-44.

Clearly, the Commission's responsibility in this proceeding is to make a reasonable estimate of stranded costs. OCA submits that it would be unreasonable to assume that a competitive market does not produce gains in productivity since this would provide the benefits of normal productivity gains resulting from competition to shareholders while ratepayers paid exorbitant levels of stranded costs. OCA St. 1 at 30. As Mr. Kahal testified, his productivity adjustment is intended to capture only "normal efficiencies associated with moving from cost plus regulation to competition." Id. OCA agrees with Mr. Nelson that if the Company is able to exceed the competitive norm in terms of productivity, that it can and should reap the benefit of that performance. However, Mr. Kahal's modest productivity gain of 1% per year over a ten-year period is a reasonable estimate of what the "competitive norm" would be, and should be reflected in determining stranded costs. OCA M.B. at 44.

Mr. Nelson and Mr. Duckworth are also clearly in error in assuming that Duquesne's incorporation of historic mitigation efforts adequately addresses concerns about productivity gains. To the contrary, as Mr. Kahal explained, those efforts were made in the context of standard regulation and are a far cry from addressing the types of productivity enhancements that are likely to be realized in the context of a competitive market place. Id. at 31. Mr. Nelson's and Mr. Duckworth's assertions are clearly inconsistent with the concept of the developing competitive market and must be rejected and Mr. Kahal's adjustment adopted. OCA M.B. at 44.

The OCA notes the Company argues that the Commission should reject OCA's modest $13 million adjustment to market value to reflect productivity gains. Duquesne M.B. at 37-38. The Company asserts that OCA's proposal must fail because it is not based on a study of the efficiencies which could be achieved from Duquesne's assets and workforce. Id. at 38. Mr. Kahal's efficiency adjustment is a conservative adjustment of 10% savings achieved over a ten-year period as a result of efficiencies that are normal when a market moves from regulation to competition. OCA M.B. at 42-44. This estimate of efficiency savings is conservative in relation to estimates made by FERC staff and the Department of Energy of 15-25%, and 25-40% respectively. Id. at 43, fn. 6; OCA R.B. at 11-12.

Duquesne also argues that OCA has failed to consider the savings already achieved by the Company and savings expected to be achieved through the merger. Duquesne M.B. at 38. As OCA witness Kahal testified, the issue here is not efficiencies that have been able to be achieved in a regulated forum, but efficiencies brought on by the competitive market. OCA M.B. at 44. Further, OCA disagrees that efficiencies created by the merger are the same efficiencies that will be realized through competition. Clearly, they are different and should be separately taken into consideration. OCA submits that Mr. Kahal's estimation of productivity savings, which simply reduces the annual rate of inflation in generation-related non-fuel O&M and A&G expenses by 1.0% for a ten-year period, is reasonable and should be adopted. OCA R.B. at 12.

(iii) The City's Position

The City argues Duquesne's projections assume "fixed technology" and even Duquesne admits that a "fixed technology" estimate is inaccurate. Duquesne erroneously assumes that competitive pressures will not result in technological innovation, efficiency and productivity gains. Competition will motivate new efficiencies and could provide millions of dollars in cost savings. The U.S. Department of Energy, Energy Information Administration, reports that competition may reduce industry non-fuel operating expenses by as much as 40%. Finally, Duquesne has more room than its competitors to reduce costs since Duquesne had the lowest relative efficiency of utilities studied in Pennsylvania, in the East Central Area Reliability Coordination Agreement ("ECAR") region, and the third lowest of utilities studied in the nation. City M.B. at 16.

(iv) The PRA's Position

The PRA suggests productivity is the central tenant of a competitive environment. It was a major rationale for injection of competition into the retail electric generation market. OCA witness Kahal aptly describes its importance:

> The issue of productivity and efficiency is central to the introduction of competition into electric generation. Certainly, one of the primary reasons of moving from a system of regulated monopoly, subject to cost-plus pricing, to competition is the belief that competition will motivate new efficiencies in cost control benefits not attainable under regulation. Moreover, such efficiencies are not merely a one-time or episodic effort at cost control (e.g., a utility downsizing initiative at a given point in time) but will be continual. Once deregulated, the owners of generation assets will be seeking ways of controlling costs and improving productivity on an ongoing basis.

> In the context of electric restructuring cases, in Pennsylvania and elsewhere, such efficiencies are referred to as a form of 'mitigation', i.e., offsets to reduce uneconomic costs. Pennsylvania electric utilities are expected to address such mitigation efforts in their respective filings.

OCA St. 1 at 29. PRA M.B. at 51-52.

A productivity gain has not been reflected by Duquesne in its stranded cost analysis. Utility operating costs, however, should be reduced as competition is introduced in the retail generation market. Id. at 31. This should include fuel costs, non-fuel, O&M, Administrative and General expenses and even possibly capital additions needed to maintain units and life extensions. Id. There have been several attempts to quantify productivity gains as a result of competition in the electric market. OCA St. 1 at 32-33. The OCA has assumed reasonably a productivity gain beginning in 2003 and extending for ten years thereafter. Id. at 33. This adjustment, however, is applied only to Duquesne's non-fuel O&M and A&G expenses. Id. at 34. The 1999 NPV of the productivity adjustment should be adopted by the Commission. PRA M.B. at 52.

The PRA notes Duquesne claims that productivity gains may not be used in this proceeding because of the historic mitigation efforts implemented by it. This only focuses upon historic patterns and not future changes. It is counter-intuitive to assume that productivity gains will never come to the electric industry as a result of retail generation competition. If this is true, then Pennsylvania will not receive cost reductions and it means that the Pennsylvania General Assembly has been hoodwinked. Obviously this is not the case. As the Commission recognized in PECO, competition will result in lower costs largely as a result of efficiency/ productivity gains. PRA M.B. at 15-16.

(v) **Recommendation**

In my opinion, insufficient evidence exists in this record to support a productivity gain adjustment to Duquesne's generation related stranded costs. Therefore, I urge the Commission to reject it.

(d) **Costs Independent of Operation**

(i) **Duquesne's Proposal**

Duquesne explains "Costs Independent of Operation" represent costs that are unavoidable if a generating unit is shut down. Costs independent of operation are not, as some intervenors suggest, a novel concept. HSS St. 1-S at 35-36. An obvious example is nuclear decommissioning. N.T. 557. These costs cannot be avoided by shutting down a nuclear plant; indeed, the costs increase (on a net present value basis) the sooner a plant is shut down. Duquesne Ex. DJC-13. For purposes of illustration, we discuss only two additional categories here. The first is property taxes. Depending on the assessment practices of a given state or locality, the property taxes on a generating station may, or may not, abate when the plant ceases operation. Duquesne St. 4-R at 3-4. For example, the Perry nuclear station is located in Ohio where, unlike Pennsylvania, tax assessments continue to apply even if a plant is shut down. Id. at 4. The second category is administrative and general costs. These costs do not decline (or increase) in direct proportion to the number of generating units that are operating. Id. at 2-3; Duquesne St. 10-R at 5. Thus, shutting down a single plant will allow Duquesne to avoid some, but not nearly all, of the labor and facilities costs that support the generating function of the

business. Id.; N.T. 578, 600-602.[91] In sum, there is no real dispute that a significant level of these costs is unavoidable; therefore, if an administrative determination of stranded costs is made, Duquesne's projection of these costs should be included. Duquesne M.B. at 38-39.

(ii) The OTS' Position

The OTS finds this $208.23 million present value claim ($95.61 million nuclear and $112.62 million fossil) was first presented by the Company in rebuttal in its one-time administrative valuation alternative. Duquesne St. 2-R at 14. OTS did not specifically address this issue in testimony due to time constraints; however, this issue was addressed by OCA witness Matthew Kahal. OTS M.B. at 29.

According to Mr. Kahal, this claim assumes that stranded cost quantification should incorporate negative market values for generating units. This is a change from the Company's direct case where negative market values (except for decommissioning) were set to zero. Mr. Kahal indicates that the Company's claim is not supported by discussion, analysis, or presentation. OCA St. 1A at 10-11; OTS M.B. at 29.

OTS Witness Metro did not include an allowance for PV of Costs Independent of Operation in the Summary of OTS Stranded Cost Estimates provided in OTS Exh. 4-SR, Sch. 1. See, also, Appendix, Tables 2 and 3. This is the summary of OTS' position on stranded cost valuation, as modified by the Company's February 6, 1998, fax, in the

[91] It is possible, however, that a substantial amount of these costs could be avoided through a full divestiture, which would eliminate the generating function of the business. N.T. 625-26.

event the Commission requires a one-time administrative determination of stranded costs as of January 1, 1999 in this proceeding. OTS M.B. at 30.

(iii) The OCA's Position

The OCA notes the Company initially assumed that plants with a net negative plant margin at January 1, 2006 would have a zero dollar market value. In its Rebuttal testimony, the Company modified this position, and in its analysis of stranded costs at January 1, 1999, has included a claim of $208.23 million for "Costs Independent of Operation" which are essentially the net[92] "unavoidable costs" associated with the operation of plants that produce net negative margins in the Company's analysis. Duquesne St. 2-R at 13-14 & Exh. DJC-10. OCA M.B. at 45.

While Company witness Clayton appears to contend in his Rebuttal testimony that it was not necessary to identify these costs in its direct case given the Company's final valuation proposal, Duquesne St. 2-R at 14, clearly the Company's failure to identify these losses/unavoidable costs as part of its Direct case has prevented other parties from assessing the validity of the Company's claim that such costs are unavoidable. OCA St. 1-S at 8. Moreover, Mr. Clayton's testimony indicates that while "many of these costs are not immediately avoidable," Duquesne St. 2-R at 36-37, this does not mean that they may not be able to be avoided in the long run. OCA M.B. at 45.

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[92] These are "net" unavoidable costs because the Company's analysis indicates that for Perry, Beaver Valley 2, and Elrama, continued operation will produce plant margins which are sufficient to cover avoidable costs and provide some offset to these unavoidable costs.

The Company's presentation on this entire issue is unjustified. Mr. O'Brien's Schedule MKO-2, as revised, presents the Company's estimate of avoidable overheads associated with its generating units. Duquesne St. 4-R, Exh. MKO-2. As indicated there, Mr. O'Brien has estimated that if Cheswick, Perry and Elrama were retired, only $2,752,000 out of $16,784,000 of overheads allocated to those plants could be avoided. Id. Thus, according to the Company, it would continue to incur overheads of more than $14 million that had been allocated to these plants, even if they were retired. Id. This is only 16% of such costs ($2,752,000/$16,784,000). OCA M.B. at 45.

In addition to these overheads, Mr. O'Brien provided Mr. Clayton with estimates of avoidable property taxes, capital stock taxes, and employee severance costs for Elrama and Cheswick. Mr. Duckworth provided estimates of shut-down costs for Perry. Mr. Nelson provided estimated costs for placing Cheswick or Elrama in cold reserve and reactivating it, and for caretaker costs. OCA M.B. at 45-46.

Mr. O'Brien's testimony shows that he considers approximately 16% of overheads as avoidable but provides little explanation as to why he considers only this level of overheads from these plants to be avoidable. Id. at 46.

To the best of OCA's knowledge, no other utility in Pennsylvania has presented a stranded cost claim for "Costs Independent of Operation." For the reasons set forth, supra, OCA submits that they should not be allowed in this proceeding. Id.; OCA R.B. at 12.

(iv) **DII's Position**

DII notes in its rebuttal case that the Company, for the first time, claims existence of "costs independent of operation." These costs purportedly reflect costs at units showing a negative margin under Duquesne's NPV analysis that will be "incurred whether or not that particular generating unit is operated." Duquesne St. 3-R at 10. DII takes no position on the propriety of allowing the Company to recover these alleged costs independent of operation; yet, DII expresses the concern that such costs were not identified in the Duquesne direct case. Duquesne explains, on cross-examination, that costs independent of operation adjustment does not apply to the DII market price forecast and stranded generation calculation because those costs are somehow subsumed in the market prices assumed in the DII calculation. N.T. at 547-551. In other words, the DII market price analysis already accounts for this newly-discovered "deficiency" of other parties' market value calculation. Because the reputed costs independent of operation are already reflected in the DII market price forecast, acceptance of the DII market price forecast and stranded cost calculation would not necessitate concurrent adjustments to that calculation for the Duquesne claim of "costs independent of operation." DII M.B. at 45-46; DII R.B. at 23-24.

(v) **Recommendation**

In my opinion, sufficient evidence exists in this record to support the Company's claim for costs independent of operation. Therefore, I urge the Commission to approve it.

(e) Projected Capital Additions and O&M Expense

(i) Duquesne's Position

The Company refers the reader to its discussion on "productivity gains," supra, in response to the HSS/ARI's proposal regarding an "assumed" level of O&M or capital expenditure reductions. Duquesne M.B. at 39.

(ii) The OCA's Position

With modifications only for Mr. Smith's higher inflation rate and fuel costs and for life extension, as discussed above, OCA witness Kahal has utilized the Company's projections of capital additions and O&M expense levels. OCA M.B. at 46.

(iii) HSS/ARI's Proposal

HSS/ARI assert in considering Duquesne's stranded cost claim, it must be remembered that there are two sides to the equation, i.e., Duquesne's projected revenues have to be measured against Duquesne's projected costs. Thus, an overstatement of stranded costs can as readily occur from an overstatement of cost projections as from an understatement of projected revenues. N.T. 266. As a result, as previously indicated, Dr. Weisenmiller examined Duquesne's costs, as well as its price, projections. In doing so, he identified two significant instances in which Duquesne overstated its projected costs, thus unreasonably inflating its stranded cost claim. HSS/ARI M.B. at 60.

The first of those two instances concerns Duquesne's projections of generation-related capital additions. As Dr. Weisenmiller pointed out, Duquesne forecast those capital

additions for some of its generation plants as far out as 2026, or nearly 30 years into the future. HSS/ARI St. 1 57. Moreover, Duquesne's rate proposal implicitly relies upon the capital additions through 2005. Id. at 57-58. In addition, to calculate its stranded cost claim, Duquesne accounted for generation-related projected capital additions by determining what they would be as of December 31, 2005 on a net present value basis. Thus, Duquesne's claim that it might have stranded costs as of that date expressly is based upon Duquesne's inclusion of the projected costs of those generation-related capital additions. Id. at 58. Duquesne estimated that it would construct capital additions at a cost of $352 million from 1997 to 2005. Exh. DJC-3 at 25. Nonetheless, Duquesne's evidence does not demonstrate any reason why those cost projections should be deemed to be reasonable. On the other hand, the evidence clearly establishes that Duquesne's projections are excessive. HSS/ARI M.B. at 60-61.

Dr. Weisenmiller reviewed Duquesne's "Corporate Budget Variance Reports" for the years 1987 through 1996. Exhibit RBW-21, which contains those variance reports, and Table IV-2 in Dr. Weisenmiller's testimony, show that, on average, there was a 17% variance between Duquesne's forecasts of generation-related capital expenditures just 12 months in advance and Duquesne's actual expenditures, with Duquesne's expenditures averaging 17% lower than budgeted amounts. HSS/ARI St. 1 at 60. Dr. Weisenmiller concluded, based upon those studies, that Duquesne cannot accurately forecast its capital expenditures even one year in advance, much less almost thirty. Id. at 58. Thus, based upon ten years of data, Dr. Weisenmiller recommended that Duquesne's projected generation plant capital additions be reduced by 20%. That reduction is fully appropriate to reflect Duquesne's historic practice of overstating budgets. See, PECO Order at 82. HSS/ARI M.B. at 61.

Duquesne's projected O&M expenses also should be reduced. That reduction is warranted for several reasons. Dr. Weisenmiller compared Duquesne's historic production costs to those of other utilities in ECAR, as well as in Pennsylvania, using data from bench marking studies performed by Standard & Poor's Rating Information Services, Exh. RBW-23, and Barakat and Chamberlin, Incorporated, Exh. RBW-24. He also reviewed similar bench marking studies commissioned by Duquesne (Exh. RBW-25), and statements by Duquesne in recent annual reports. Those sources of data showed that Duquesne's production and operation costs fall short of industry standards in numerous categories. HSS/ARI St. 1 at 62-64:22; Exhs. RBW-23, 24 and 25. For example, Duquesne's total energy costs were 15% higher than the ECAR average for 1995. Exh. RBW-23 at 6 (Chart). Its fixed production costs were 40% higher than the ECAR average. Id. Total production costs exceeded the ECAR average by 20% for 1995. Id. Moreover, in a ranking of relative efficiencies of utilities, Duquesne ranked in the bottom third nationwide, lower than any other ECAR and Pennsylvania utilities in the study. HSS/ARI St. 1 at p 63:4-10. Additionally, in a study performed by independent consultants on Duquesne's behalf, the study suggested that Duquesne reduce plant operations personnel by 45%. Exh RBW-4; HSS/ARI M.B. at 61-62.

Despite lip service from Duquesne with respect to its efforts to become competitive, HSS/ARI St. 1 at 63-64, Duquesne's production costs remain among the highest of the utilities in ECAR. Exh. RBW-23 at 6 (Chart). There are no grounds that support ratepayers' continued subsidization of Duquesne's inefficiencies. Accordingly, the Commission should reduce Duquesne's O&M expenses by 15% as recommended by Dr. Weisenmiller. HSS/ARI St. 1 at 64; HSS/ARI M.B. at 62.

(iv) **Recommendation**

In my opinion, insufficient evidence exists in this record to substantiate the proposals of the HSS/ARI relating to projected capital additions and O&M expense. Therefore, I urge the Commission to reject them.

(f) **Environmental Regulations**

(i) **Duquesne's Proposal**

The Company notes all the market price forecasts in this case ignore two recent proposals that, if implemented, would add significant costs to operating Duquesne's generation. The first is the EPA State Implementation Plan ("SIP call"), which would add more than $100 million in capital and O&M expense to Duquesne's fossil units. Duquesne St. 10-R at 8-9. The second is the recent Kyoto conference, where the participating nations agreed to significantly reduce CO_2 emissions. N.T. 937-43. While it is not possible to quantify precisely the impact of such proposals on Duquesne's generation costs, the Commission should recognize that all of the market value estimates are conservative in not taking into account the cost impact of these potential regulations. Duquesne M.B. at 39-40.

(ii) **The OCA's Position**

The OCA notes the impact of environmental regulations is included in the context of its market price forecasts, discussed supra. OCA M.B. at 46.

(iii) **DII's Position**

DII finds the Company never challenged DII's market price projection on this point. Duquesne St. 10R at 7-10. Because of this failure, it is misleading to assume the DII projection does not address environmental regulations. Second, the Kyoto Accords on CO_2 emissions must be adopted by the U.S. Senate to become effective. Duquesne's witness expresses doubt that the treaty will be passed. N.T. at 940. Even if it were passed, Duquesne suggests that "at this point, it is impossible to say what those impacts will be." N.T. at 940; DII R.B. at 24.

(iv) **Recommendation**

Since I recommend the OCA's market value study which adjusts for the impact of the known environmental regulations, no further adjustment should be allowed. Moreover, no substantial evidence exists in this record to substantiate any adjustment for the impact of the recent Kyoto conference. Accordingly, I urge the Commission to reject Duquesne's proposal to further adjust its stranded costs to reflect the impact of environmental regulations.

(g) **Other Adjustments**

(i) **Duquesne's Position**

The OCA proposes several additional adjustments on which the Company takes no position. Duquesne M.B. at 40.

(ii) The OCA's Proposals

(1) Working Capital

The Company made no initial claim for working capital. OCA witness Kahal made an adjustment to increase stranded costs to reflect working capital of $45.62 million, net of an offset for the sale of inventory in the last year of each plant's life. OCA M.B. at 46; OCA St. 1 at 27-28.

(2) Pilot Program Incentive Credits

If the Commission approves a reduction in rates as proposed by OCA, OCA submits that the pilot program incentive credits recognized as stranded costs should be adjusted. OCA St. 1 at 16-17. Additionally, these should be adjusted to reflect the level and/or time of participation as compared to the forecasted level. OCA M.B. at 46.

(3) Half-Year Discounting for First Year of Analysis

While the Company applied a full-year of discounting to the first year, OCA witness Kahal testified that only a half-year of discounting should be applied since it is more realistic to assume that Duquesne receives its cash flow evenly throughout the first year. OCA M.B. at 46-47; OCA St. 1 at 25.

(iii) Recommendation

Since no party objects, I recommend for adoption the OCA's proposals for adjusting for working capital, pilot program incentive credits and half-year discounting for first year of analysis.

C. Merger Savings

1. Duquesne's Position

The Company posits any issues regarding merger-related synergies are appropriately addressed in the merger docket, not this proceeding. Duquesne M.B. at 41.

2. The OTS' Position

The OTS does not address this topic in this stand-alone restructuring proceeding. Instead, it addresses the issue in the merger docket. OTS M.B. at 31.

3. The OCA's Position

The OCA notes the Company has indicated a willingness to reflect $160 million of additional accelerated depreciation if its merger with Allegheny Power System is consummated. Duquesne St. 1 at 37. However, the Company has not reflected merger savings in its computation of stranded costs, but has indicated, instead, that that issue be addressed in the context of the merger proceeding. The OCA disagrees. Because the outcome of the proposed merger will not be known until after the record in this proceeding is closed, it is improper to totally omit merger savings from the stranded cost study. Instead, the Commission

should consider stranded costs both with and without merger savings. Id. at 39; OCA M.B. at 47

OCA witness Kahal estimated those savings using an analysis provided by Mr. O'Brien in the merger docket which shows year-by-year net merger savings. OCA St. 1 at 39. According to Mr. O'Brien's study, Duquesne's generation-related merger savings are 48.34% of its net total merger savings during the first ten years. Id. Using this "rule of thumb relationship," Mr. Kahal calculated the year-by-year generation related merger savings, as shown on Schedule MIK-9, for the first ten year. Id. He then increased this amount by a 2.7% escalation rate for the following ten years. Id. To this, he added $2.5 million per year for joint dispatch savings, based on Mr. O'Brien's estimate, again increasing them by an escalation factor of 2.7%, which was not reflected in Mr. O'Brien's analysis. Id. OCA M.B. at 47-48.

In total, Mr. Kahal estimated generation-related merger savings of $152.28 million at January 1, 1999 on an after tax basis and net of costs to achieve the savings. Id. at 40 & Sch. MIK-9. The Company did not specifically dispute Mr. Kahal's estimate of merger-related savings in this case, other than to argue that such savings could be addressed in the final valuation. His adjustment should be adopted. OCA M.B. at 48; OCA R.B. at 13.

4. <u>DII's Position</u>

DII supports and adopts the OCA's position with respect to Duquesne's claimed savings that will result upon approval of the proposed merger. OCA St. 1 at 38-40. Fairness and equity require that those savings be credited against any stranded cost recovery authorized

in this proceeding regardless of the valuation method used to determine the exact amount. DII M.B. at 47. Although DII recognizes that a separate docket has been convened for this purpose, DII notes the Company is the Party that interjects the topic of merger savings into this docket by submitting direct testimony claiming "synergistic savings" will be achieved. Duquesne St. 1 at 6. It is only fair and equitable that any merger-related savings be credited against quantified stranded costs. DII R.B. at 25.

5. HSS/ARI's Position

While HSS/ARI take no position with respect to the proposed merger of Duquesne and APS, Duquesne witnesses testify that the proposed merger will result in approximately $550 million in mitigation available from cost savings associated with the proposed merger. If indeed the merger proceeds, the Commission should recognize those cost savings and use the full $550 million to offset any allowed stranded costs. These merger savings should be allocated, as appropriate, to offset Duquesne's and West Penn's stranded cost recoveries. HSS/ARI M.B. at 63-64.

6. The PRA's Position

The PRA contends, should the Commission approve the merger of APS and Duquesne, then the stranded investment analysis must quantify those savings. The OCA estimated merger savings of $152.28 million at January 1, 1999 NPV as follows:

> I estimated those savings using the information in Mr. O'Brien's Exhibit MKO-2 in the merger docket. . . . Mr. O'Brien's study provides the year-by-year net merger savings (i.e., net of costs to achieve) for Duquesne each year through

> 2007. For example, in 1999 the net merger savings for Duquesne (net of costs to achieve) are $29.884 million. Mr. O'Brien also provides some information on merger savings for Duquesne by major function. According to his study, Duquesne's generation-related net merger savings, (other than joint expense savings), are 48.34% of its net total merger savings during the first 10 years.
>
> Using this rule of thumb relationship, I calculate the year-by-year Duquesne merger savings relating to generation on Schedule MIK-9. After calculating Duquesne's generation savings, I add $2.5 million per year (escalated at two and seven-tenths percent) for joint dispatch savings. After 2007, the merger savings are assumed to increase by 2.7% per year. Since I have not applied the DRI inflation adjustment to these merger savings, the results on Schedule MIK-9 are conservatively low.

OCA St. 1 at 39. Stranded investment should be quantified both with merger savings and without merger savings. PRA M.B. at 53-54; PRA R.B. at 17.

7. MAPSA's Position

MAPSA argues Duquesne's planned merger with West Penn Power has serious negative implications which must be considered in any decision on its individual restructuring. The two cases are inextricably intertwined. Duquesne, in its direct testimony, Duquesne St. 1 at 36-37, stated that the pending merger between Duquesne and West Penn Power will produce additional savings above and beyond those alleged in Duquesne's restructuring case. Duquesne attempts, however, to isolate the currently filed restructuring plan from the merger and continually states that this is its "stand alone case." Duquesne cannot have it both ways. Either this Commission should consider Duquesne's currently proposed restructuring case as a completely stand alone case or the Commission should consider that the currently proposed restructuring plan in light of the proposed merger between Duquesne and West Penn Power will,

in fact, occur. In the former scenario, it would be wholly inappropriate for Duquesne to introduce any evidence regarding the merger in this proceeding. However, as is readily apparent, Duquesne's restructuring plans change dramatically if the merger does, in fact, take place. Therefore, this Commission should consider, in this case, what is likely to occur in the restructuring plan, post-merger, and should, in ruling upon this plan, take into consideration the fact that the merger is likely to occur. MAPSA M.B. at 24-25.

Several Intervenors, through their testimony, have indicated the potential harm that the merger between Duquesne and West Penn will create. See, e.g., MAPSA St. 1 at 9-17. The pending merger will undermine the ability of other suppliers to compete, will raise barriers to entry and allow the merged companies to lower their costs in non-comparable ways. The merger also has potential anti-competitive effects due to the joint control of transmission and distribution facilities of Allegheny and Duquesne, the ability of these two merged entities to game the system, and the ability of the merged entity to escape effective regulation by the Pennsylvania Public Utility Commission. In particular:

- Because Duquesne's native load customers become the native load customers of West Penn and visa versa, what would have been an off-system sale from West Penn to Duquesne prior to the merger, becomes a native load sale. Such a conversion has immense favorable economic consequences for the merging companies. For example, transmission providers can set aside firm transmission capacity for native load customers, use the native load priority to import low-cost power, and thereby free internal generation for profitable of sales to the PJM, etc.

- West Penn's proposal to amend the FERC-jurisdiction Power Supply Agreement will be coupled with a major change in the control of APS's generation and restrict Duquesne's ability to mitigate stranded costs. A newly-formed generating company will lease the generating capacity owned by the operating companies and sell power back at fixed rates until 2004. The documents governing this amendment and changes of control

have been drafted in ways that may override Pennsylvania's restructuring plans or otherwise be adverse to competitors and ratepayers.

- While before the merger, APS will have every incentive to make an off system sale at a high price instead of selling power at a lower price to Duquesne, after the merger, APS has an incentive to do the reverse. The lower cost to Duquesne keeps competitors at bay and restricts Duquesne's stranded cost recovery. Such a sale is a win/win for the merged company and an artificial barrier to competitors.

- The merged company intends to consolidate control areas and centralize the automatic generation dispatch to the merged company's generation assets, effectively reducing revenue credits to transmission rates.

- APS makes none of the transmission capability linking its system to high cost markets available to others on a firm basis. Thus, APS has commandeered for its exclusive use firm access high cost markets and much of the first access to low cost markets. Competitors will have difficulty competing for firm access to lucrative system sales. The inability to deliver power to PJM will adversely effect the amount bidders will offer in Duquesne's RFP.

MAPSA M.B. at 25-27; MAPSA St. 1 at 9-17.

In view of the significant potential anti-competitive effects of the proposed merger, at a minimum the Commission should take the following actions:

1. Leave this restructuring docket open such that all parties have access to a readily available proceeding where the Commission can review complaints of anti-competitive behavior with the burden of proof remaining on the utility.

2. As a reasonable condition of the Commission's granting any approval for the merger, the merged entity should be required to waive any claim of primary federal jurisdiction. MAPSA M.B. at 27.

8. <u>Recommendation</u>

I agree with MAPSA that this restructuring application and the merger proceeding are inextricably intertwined. For that reason, an adjustment must be made in this case to account for the savings due to the synergies that the Company admits will be achieved if the

merger is successfully consummated. The recommendation of the OCA is persuasive. For that reason, I urge the Commission to adopt it.

D. Decommissioning

1. Nuclear Decommissioning

(a) Duquesne's Proposal

The Company explains Mr. LaGuardia submitted detailed, site-specific decommissioning studies for each of Duquesne's generating units. Duquesne St. 13; Duquesne St. 13-R. Mr. LaGuardia manages a firm (TLG Services, Inc.) that bids on and performs decommissioning work for both nuclear and non-nuclear facilities; he is not just an expert witness. N.T. 643-44; Duquesne M.B. at 41.

No intervenor witness submitted a nuclear decommissioning study or criticized Mr. LaGuardia's study in any detail. The main criticism related to the "contingency factor" used by Mr. LaGuardia. The OTS claims that a contingency factor simply adds "an estimate for unknown circumstances on top of what is already an estimate of expenses." OTS St. 2 at 5. By contrast, the OCA would allow a contingency factor, but simply reduce it to 10%, relying on a "proposed" policy statement by the Commission. OCA St. 3 at 19; Duquesne M.B. at 41.

The OTS' proposal should be rejected because it has no substance. To contend that a contingency factor should be rejected, because it represents a "contingency" is simply not enough here. Mr. LaGuardia testified at length during the hearing that, in his firm's actual experience, contingency factors have proven accurate. N.T. 649-53. Indeed, TLG Services'

ability to accurately predict the cost of decommissioning, including contingencies, has been remarkable - falling within approximately 4% for plants already dismantled. Duquesne St. 13 at 25; N.T. 677-78.[93] Duquesne M.B. at 41-42.

OCA's reliance on a proposed policy statement that was never adopted, Duquesne St. 13-R at 11-12, is hardly compelling, and that was the only evidence provided in support of its adjustment. OCA St. 3 at 19. Mr. LaGuardia's contingency analysis, by contrast, was not simply a "plug" percentage for all plants, but rather was site specific, Duquesne St. 13-R at 11 and hence varied for each plant. N.T. 647-49. Finally, Duquesne notes that in PECO Energy the Commission appeared to accept, without adjustment, Mr. LaGuardia's estimate of decommissioning expense. PECO Energy, Slip Op. at 78; Duquesne M.B. at 42.

(b) The OTS' Position

The OTS explains nuclear decommissioning is the dismantlement, decontamination, removal and disposal of the components of a nuclear generating facility at the end of its useful life. Duquesne has claimed a share of the decommissioning responsibility for the Beaver Valley 1 and 2 and the Perry nuclear sites in its stranded cost claim. OTS St. 2 at 2-3; OTS M.B. at 31.

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[93] HSS claims that there is "no established track record . . . [for] large-scale" decommissioning, HSS St. 1 at 74, but ignores the actual experience of TLG in accurately predicting decommissioning costs, including the Shoreham plant. N.T. 677-78. The Environmentalists avoid the issue entirely by stressing that Mr. LaGuardia's estimates in testimony have increased over the years faster than the rate of inflation, Env. St. 2 at 32-33, when the real issue, of course, is whether his estimates match actual experience, which they do. Duquesne St. 13 at 25; N.T. 677-78.

Duquesne's estimate for the decommissioning of Beaver Valley 1 and 2 is $727.7 million and its estimate for Perry is $650 million, for a total of approximately $1,378 million (1997$). Duquesne St. 13 at 4; OTS St. 2 at 4; OTS Cross Exh. 2. Based on Duquesne's partial ownership share in these nuclear sites, the Company's share of estimated nuclear decommissioning expenses is $307.7 million. OTS St. 2 at 4. This estimate is based upon site-specific studies performed by Duquesne consultant Thomas LaGuardia. Duquesne St. 4 at 17. Mr. LaGuardia also included contingency factors of 21.7% for Beaver Valley 1, 21.74% for Beaver Valley 2, and 16.71% for Perry, which he added to his underlying estimates. OTS Cross Exh. 2; OTS St. 2 at 4. Duquesne's stranded costs claim related to the $307.7 million estimate is $57.40 million. Duquesne Exh. DJC-20 at 2; OTS M.B. at 31-32.

Funds for nuclear plant decommissioning are currently being recovered in Duquesne's rates and are deposited in an external nuclear decommissioning trust fund, as required by Nuclear Regulatory Commission ("NRC") regulations and applicable Commission Orders. Duquesne St. 4 at 16. Duquesne proposes to continue to recover nuclear decommissioning expenses at the current level of approximately $9 million per year through its CTC until January 1, 2006. Duquesne St. 4 at 17; N.T. 592. At that time, the Company is proposing to treat any remaining unfunded balance as a reduction in any residual value of its generation plant that would enter into the final valuation proposed by the Company to be deferred until 2003. Duquesne St. 4 at 17; OTS M.B. at 32.

OTS engineer Darren Gill presented the OTS position in opposition to the Company's nuclear decommissioning claim and method of recovery. As stated by Mr. Gill, the Company's $1,378 million estimate, which includes a 4% annual inflation factor up to the year

of each plant's decommissioning, is improperly inflated again due to the inclusion of contingency factors ranging from 16.7% (Perry) to 21.74% (Beaver Valley 2). OTS St. 4 at 4-5; Duquesne St. 2 at 35; OTS M.B. at 32-33.

Mr. Gill's opposition to contingency factors is in accord with the Competition Act, which provides that claimed stranded costs must be "known and measurable." 66 Pa. C.S. §2803. As acknowledged by Mr. LaGuardia, the contingency factor was added "to allow for the effect of unpredictable program problems on costs." Duquesne St. 13 at 15. There is simply no way that unpredictable program problems can produce "known and measurable" costs, and, therefore, Duquesne has not met its burden of proof. Also, while Mr. LaGuardia provided a list of the types of problems which he agreed may occur in decommissioning a nuclear unit and which are covered by the contingency, he admitted that the level of these costs was not known. Duquesne St. 13 at 22-23; N.T. 649-653; OTS M.B. at 33.

In Pa. P.U.C. v. Pennsylvania Power & Light Company, 85 Pa. P.U.C. 306 (1995), the Commission explicitly rejected a similar contingency factor proposed by Mr. LaGuardia in site-specific decommissioning studies for PP&L.[94] The Commission characterized the contingency factor as "little more than estimates of what may occur in estimates of decommissioning cost claims." 85 Pa. P.U.C at 344. Thus, the contingency factor was disallowed due to its speculative nature. OTS M.B. at 33-34.

In rebuttal to Mr. Gill, Mr. LaGuardia claimed that contingencies are not an inflation of costs but "a recognition of actual costs incurred in recent experience with

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[94] In the PECO Energy, supra, contingency factors were not explicitly addressed in the Commission decision to approve PECO's nuclear decommissioning approach.

decommissioning activities that were not foreseeable in advance." Duquesne St. 13-R at 11. Mr. LaGuardia is incorrect. As indicated by Mr. Gill in surrebuttal, the costs referenced by Mr. LaGuardia as reflective of contingency costs have already been included in each line item of Mr. LaGuardia's study. Increasing decommissioning estimates above reasonably "known and measurable" levels included in the line items, as Mr. LaGuardia has done with the contingency factor, is an improper inflation of costs and should not be permitted. OTS St. 2-SR at 3; OTS M.B. at 34.

The effect of removal of the contingency factors from the Company's total nuclear decommissioning estimate is a reduction of $222.9 million. Based on Duquesne's partial ownership share in Beaver Valley 1 and 2 and Perry, the Company's share of total estimated nuclear decommissioning expenses should be $255.9 million in 1997 dollars. OTS Exh. 2, Sch. 1; OTS M.B. at 34.

OTS witness Gill also disagreed with Duquesne's proposed methodology for recovering nuclear decommissioning costs. As stated previously, Duquesne intends to continue to collect the current level of decommissioning funding included in rates through the transition period. At the end of the transition period (end of 2005), the Company proposes to treat any remaining unfunded balance as a reduction in any residual value of its generation plant that would enter into the final valuation proposed by the Company to be deferred until 2003. Duquesne St. 4 at 17. However, if the residual balance of the nuclear generation plant is negative at January 1, 2006, before the Company deducts the unfunded nuclear decommissioning from the plant valuation, the Company reserved the right to extend the CTC beyond 2005 to collect the unfunded portion. OTS Cross Exh. 4; OTS M.B. at 34-35.

The Company acknowledged that by January 1, 2006, its nuclear generating plants could be generating power which is sold to retail customers outside of Duquesne's service territory. N.T. 596. In addition, the Company agreed that by January 1, 2006 some portion or even all of Duquesne's customers could be buying generation from sources other than Duquesne but could still be Duquesne distribution customers. N.T. 594. Under these circumstances, if recovery of nuclear decommissioning is permitted to continue to be collected through the CTC, then, as acknowledged by the Company, Duquesne's distribution customers would be paying the entire nuclear decommissioning costs but may not be buying generation from these plants. On the other hand, Duquesne's generation customers (who are actually receiving power from these plants) are paying nothing towards decommissioning (unless they are also distribution customers). OTS Cross Exh. 6; OTS M.B. at 35-36.

Mr. Gill's recovery recommendation would remedy this recovery inequity wherein all nuclear decommissioning costs are allocated to current regulated customers and none are allocated to deregulated generation customers. OTS St. 2 at 7-8. Mr. Gill accomplished this by first removing all nuclear plant decommissioning costs from Duquesne's market value analysis. He then inflated the OTS' 1997 estimate of Duquesne's decommissioning costs ($255.9 million) by the Company's 4% inflation rate for each nuclear unit to arrive at the decommissioning expense for each plant in 1998 dollars. See, OTS Exh. 2, Sch. 2. Next, Mr. Gill performed a net present value ("NPV") analysis of the decommissioning expense by first escalating the decommissioning expense for each plant by a 4% annual inflation factor for each remaining year of that plant's operating life, and then by discounting that value each year by the Company's nuclear decommissioning discount rate of 7.5%. OTS St. 2 at 9; OTS Exh. 2, Sch.

2; Duquesne St. 2 at 35. This produced a NPV for each plant's decommissioning expense in 1998 dollars, and a total NPV decommissioning expense of about $130.1 million. OTS M.B. at 36.

Mr. Gill then derived an in-service ratio for each nuclear unit as of December 31, 1998, which represents the percentage of that plant's operating life, using the Company's operating lives, which was dedicated solely to providing generation service to Duquesne's regulated customers. See, OTS Exh. 2, Sch. 2. This in-service ratio was then applied to the net present valued decommissioning costs for each plant to derive a total combined nuclear decommissioning recovery level of $61.327 million to be recovered from regulated customers through the CTC.[95] OTS M.B. at 36-37.

However, as indicated in Duquesne Exh. DJC-7 (revised), the decommissioning fund has $57.840 million at December 31, 1998. Thus, current ratepayers should only be responsible for the difference between the $61.327 million and the $57.840 million that current ratepayers have already contributed to the fund, for a balance of $3.487 million (rounded to $3.5 million in Appendix, Table 2) to be included in the CTC for recovery. The remaining dollars needed to fund nuclear decommissioning, which OTS estimates as the difference between the $130.1 million NPV of decommissioning expense and the $61.327 million current ratepayer share or about $68.773 million, should be recovered from the competitive market, with annual

[95] In the PECO Energy, supra, at 78, the Commission agreed with PECO's basic premise, which is also Mr. Gill's position, that current ratepayers should only be responsible to fund that portion of nuclear decommissioning expense which is associated with the period of time that the plants provided service solely to regulated customers. The Commission eventually adopted an annuity approach.

payments over the lives of the plants deposited into a qualified trust fund. OTS St. 2 at 9, 19; OTS Exh. 2, Sch. 2; OTS M.B. at 37.

The amount of OTS "disallowance" is $53.90 million, which is a "fallout" number for illustrative purposes. The $3.5 million OTS allowance, which is net of existing funding, is based upon Mr. Gill's "bottoms up" approach of building up to an appropriate nuclear decommissioning stranded cost allowance. OTS M.B. at 38.

The OTS notes Duquesne relies solely upon its expert's purported historical accuracy in predicting decommissioning costs, including contingencies, as support for the Company's nuclear decommissioning stranded costs claim. Duquesne M.B. at 41-42. This is clearly insufficient to meet the Company's burden of proof under the Competition Act. OTS R.B. at 8.

As testified to by HSS/ARI witness Dr. Weisenmiller, there have been only four completed nuclear power plants that have been decommissioned so far in the United States, so experiences with actual decommissioning costs are extremely limited. Also, of the four that have been decommissioned, according to Dr. Weisenmiller, only one (Shoreham) was even remotely similar in size and power output to the Duquesne nuclear facilities (Beaver Valley 1 and 2 and Perry). HSS/ARI St. 1 at 74. The Shoreham Nuclear Power Station ran only two effective full power days. N.T. 643. Since Duquesne has not met its burden of proof, its nuclear decommissioning stranded costs claim should be rejected in favor of OTS witness Darren Gill's proposal which removes contingency factors. OTS R.B. at 8-9.

In addition, OTS notes that the Company failed to address Mr. Gill's recovery proposal for estimated nuclear decommissioning costs. Mr. Gill's recovery proposal was

presented in pre-filed direct testimony, OTS St. 2 at 7-10, 18-19, which was entered into the record during hearings on December 17, 1997. N.T. 634. It also was addressed in the OTS Main Brief at pages 34-37. Since the Company failed to respond to Mr. Gill's recovery proposal in its Main Brief (and also apparently did not address this proposal in its testimony), it must be assumed that Duquesne has no objections to the recovery proposal. OTS R.B. at 9-10.

(c) **The OCA's Position**

The OCA recommends modification of the Company's nuclear decommissioning claim. In evaluating Duquesne's claim for stranded costs associated with nuclear decommissioning, OCA witness Catlin recommended a change in the treatment of these costs in order to determine stranded costs as of December 31, 1998. He explains the necessity for this adjustment:

> I am proposing to change the treatment of nuclear decommissioning expenses to be consistent with the OCA's proposal to determine stranded costs as of December 31, 1998 rather than December 31, 2005. To accomplish this, I have calculated the annual funding contributions which are required over the years 1999 to 2005 to fully fund nuclear decommissioning costs prior to December 31, 2005.

OCA St. 3 at 18; OCA M.B. at 48.

In addition, in calculating the annual funding contribution to fully fund the obligation, OCA witness Catlin reduced the contingency allowances contained in Duquesne's decommissioning estimates to reflect a 10% contingency, rather than the contingencies

(approximately 20%) contained in the Company's claim. OCA witness Catlin described the support for his adjustment explaining that:

> In its Order in Pennsylvania Power & Light Company's last rate case at Docket No. R-943271, the Commission eliminated the contingencies built into that company's nuclear decommissioning cost estimates in their entirety. In doing so, the Commission noted that there is no reason to conclude "...that speculative future costs necessitate a large contingency factor which rests, in itself, on estimated costs which are far from certain." (p. 82) More recently, in July 1996, the Commission issued a *Proposed Policy Statement Regarding Nuclear Decommissioning Cost Estimation and Cost Recovery* which stated that: "Cost estimates may not include more than a 10% overall contingency factor..." While a lower contingency factor could be supported, I have reflected an allowance for contingencies at the upper end of the range suggested by the Commission.

OCA St. 3 at 19; OCA M.B. at 48-49.

In his analysis, OCA witness Catlin adopted the Company's 4.0% yearly escalation rate and 7.5% earnings rate on the decommissioning trust fund. OCA St. 3 at 19. As a result of his analysis, OCA witness Catlin found the total funding requirements to fully fund nuclear decommissioning for Perry, Beaver Valley 1 & Beaver Valley 2 to be $7,949,000 per year for the seven-year CTC recovery period. OCA St. 3 at 20; OCA M.B. at 49.

The OCA notes Duquesne criticized OCA witness Catlin's proposal to reduce the contingency factor in its nuclear decommissioning cost estimates to 10%. Duquesne M.B. at 41-42. OCA witness Catlin reduced the Company's contingency factor based on the Commission's complete disallowance of a contingency in PP&L's last rate case (Docket No. R-00943271), and the Commission's proposed policy statement. OCA M.B. at 49; OCA R.B. at 13.

In addition, Duquesne's argument that the Commission in the PECO Order adopted Duquesne witness LaGuardia's contingency factor without adjustment is based on a misunderstanding of the Commission's Order and PECO's proposed methodology. Duquesne M.B. at 42. In that case, in which the OCA and its witness here, Mr. Catlin, participated, PECO adjusted its nuclear decommissioning claim prior to seeking recovery to only include a 10% contingency. The Commission adopted PECO's proposal in that case. PECO Order, Slip Op. at 78-80; OCA R.B. at 13.

The OCA submits that based on the past treatment of contingency factors, OCA witness Catlin's adjustment sufficiently accounts for an appropriate amount of uncertainty in the decommissioning cost estimate and, as such, it should be adopted. Id.

(d) DII'S Position

DII explains the Act permits Duquesne to recover as a stranded cost "the unfunded portion of the utility's projected nuclear plant decommissioning costs." 66 Pa. C.S. §2803. The Company's claim must meet the general standards for recoverability under definition of "stranded costs," including the requirement that the costs be determined on a NPV basis over the life of the asset. Id. In addition, nuclear decommissioning costs, similar to any other stranded cost, must be netted against any possible benefits of decommissioning that will occur in the future. Id.; DII M.B. at 47.

Duquesne claims $281.0 million for nuclear decommissioning costs. Duquesne St. 4 at 8. DII submits that the Duquesne nuclear decommissioning claim is inflated because it is not valued on a NPV basis as of December 31, 1998. DII St. 3 at 31. In addition, the

Company's claim is not a "net" cost because the claim fails to incorporate trust fund earnings on collected amounts. Id. To adjust for those flaws, DII recommends that the Commission accept $42.959 million as the NPV of stranded nuclear decommissioning costs at December 31, 1998. Id. at 33.; DII M.B. at 47.

Duquesne inappropriately quantifies its nuclear decommissioning costs as of December 31, 2005. The calculation of stranded costs contemplated under the Act requires establishment of a definitive level as of December 31, 1998. 66 Pa. C.S. §2803. The Commission quantified PECO's nuclear decommissioning costs as of December 31, 1998. PECO Energy, Slip Op. at 78. The phase-in of direct access begins on January 1, 1999. 66 Pa. C.S. §2806(b)(1). The threshold date of December 31, 1998 is clearly the appropriate basis for calculating the NPV basis of stranded costs as defined in the Act. Id. §2803; DII M.B. at 47-48.

Duquesne's claim is further inflated because it fails to incorporate net trust fund earnings on amounts collected through 2005 or subsequent to 2005 under the Duquesne CTC proposal. DII St. 3 at 31-32. Amounts collected from ratepayers to fund future nuclear decommissioning expenses are put into an external trust fund that earns a rate of return. This rate of return increases amounts in that trust fund. In order to meet the Act's standard that stranded costs represents the net portion of generation-related costs, the calculation of Duquesne's nuclear decommissioning claim must recognize an offset for the trust fund earnings. 66 Pa. C.S. §2803; PECO Energy, Slip Op. at 79; DII St. 3 at 31-32; DII M.B. at 48.

In order to properly compute the total stranded decommissioning costs associated with Duquesne's nuclear facilities, DII utilizes the Company's decommissioning cost estimates,

for each unit, in 1997 dollars. DII St. 3 at 32. Those cost estimates are then escalated to the year of retirement plus the number of years representing the midpoint between the retirement year and the end of the post-retirement disbursement by 2.5% annually. The calculation incorporates returns on the trust fund balances of 7.5% and assumes that the post-retirement returns on the trust fund balance continue through the same year used to escalate the cost estimate. The net future year deficiency for each unit is then discounted to December 31, 1998, utilizing the Company's after tax cost of capital. The results of this process are depicted in DII Exhibit LK-5. DII St. 3 at 32, Exh. LK-5; DII M.B. at 48.

Based on this analysis, the properly quantified NPV of Duquesne's nuclear decommissioning expense is $42.959 million as of December 31, 1998. Id. at 33. Nuclear decommissioning costs are properly recoverable under the Act if the costs otherwise meet the definition of "stranded costs." This definition requires that nuclear decommissioning costs be netted against any possible gains (such as earnings on the external trust fund) and stated on a NPV basis at December 31, 1998. 66 Pa. C.S. §2803. Based on application of these principles, DII recommends Duquesne recover $42.959 million in nuclear decommissioning expense as part of its stranded cost claim. DII St. 3 at 33; DII M.B. at 48-49; DII R.B. at 25-26.

(e) **HSS/ARI's Position**

HSS/ARI note in its direct testimony, Duquesne witness LaGuardia stated that his estimate of the decommissioning cost for the two nuclear units at Beaver Valley is approximately $727.7 million (1997$). Duquesne St. 13 at 4. He stated that his estimate of the decommissioning cost of the Perry nuclear unit is $650 million (1997$). Id. at 5-6. As part of

its stranded cost claim, Duquesne claims $57.4 million in nuclear decommissioning costs on a net present value basis. Exh. DJC-20. at 2 and 18; HSS/ARI M.B. at 64.

In his surrebuttal testimony, Dr. Weisenmiller made clear that he was not attempting to deny Duquesne recovery of amounts needed to make sure that decommissioning of Duquesne's nuclear plants is done appropriately. HSS/ARI St. 15 at 57. HSS/ARI support that position. Nonetheless, it cannot be overlooked that this is a stranded cost proceeding in which the issue is: has Duquesne demonstrated that it will have generation-related costs that it cannot recover in a competitive market. As a result, because Duquesne has not demonstrated that it has stranded costs, there is no need for the Commission to issue any order at this time concerning funding for nuclear decommissioning. However, again, if the Commission is inclined, as a preliminary matter, to determine that Duquesne might have some level of stranded costs, it is important to discuss the evidence that demonstrates that Duquesne has failed to establish, in particular, a known and measurable quantification of stranded costs related to nuclear decommissioning. HSS/ARI M.B. at 64-65.

In his testimony, LaGuardia describes three alternative methodologies for decommissioning nuclear utilities under the rules of the Nuclear Regulatory Commission ("NRC"). Duquesne St. 13 at 34-35. While LaGuardia makes a recommendation that he characterized as an "integrated scenario," Id. at 36, it is clear that he does not have much faith in that recommendation because he states that:

> [t]he actual method or combination of methods selected to decommission the generating units should be based on a detailed economic, engineering and environmental evaluation of the alternatives considering the sites and surroundings at the time of decommissioning and reflecting the latest experience in the decommissioning of similar nuclear facilities.

Id. at 36 (emphasis added). LaGuardia's foregoing testimony is important in three different respects. HSS/ARI M.B. at 65.

First, LaGuardia acknowledged that the costs of the three different methodologies for nuclear decommissioning are not the same. N.T. 661. Thus, given that he is recommending that no decision be reached with respect to the specific decommissioning methodology to use until the time of decommissioning, there is no way to accept a decommissioning estimate today under a known and measurable standard. HSS/ARI M.B. at 65.

A second problem is that LaGuardia recommended with respect to Beaver Valley that decommissioning activities be coordinated to the maximum extent possible. Duquesne St. 13 at 13. Thus, LaGuardia apparently is recommending that actual decommissioning of Beaver Valley 1 should not occur until the decommissioning of Beaver Valley 2. That would be consistent with LaGuardia's recommendation concerning the decommissioning of fossil plants with multiple units. Id. at 13. The problem is that Beaver Valley 1 is scheduled to be shut down in 2015, but Beaver Valley 2 is scheduled to remain in operation through 2026. DJC-20 at 12-15. Thus, if Duquesne does not decommission Beaver Valley 1 until 2026, the net present value calculation of the decommissioning costs likely will be substantially less than that set forth in the present value calculation relied upon by Duquesne. N.T. 659;HSS/ARI M.B. at 65-66.

The third problem (viewed from Duquesne's perspective) that arises from LaGuardia's statement quoted above is that it essentially corroborates Dr. Weisenmiller's testimony on the issue. Dr. Weisenmiller pointed out,

> [t]o date, there have only been four completed nuclear power plants that have been decommissioned in the United States. Of these, only one was even remotely similar in size and power output to Beaver Valley 1 and 2 or Perry, (*e.g.*, Shoreham, near

> Wading River, NY at 2436 MW). Thus, there is almost no established track record associated with decommissioning large-scale utility nuclear power plants.

HSS/ARI St. 1 at 74. As a result, based upon the absence of prior experience in developing an estimate of decommissioning costs, Dr. Weisenmiller concluded that:

> it is likely that cost proposals from contractors and estimators err on the side of excessive estimation of costs. On the other hand, a number of nuclear plants are nearing retirement. As a result, the costs of decommissioning may be lower than expected by Duquesne because any new costs will be shared among a number of plant operators.

Id. at 74-75. In view of Mr. LaGuardia's statement that an actual decommissioning methodology should not be developed until "*the time of decommissioning and reflecting the latest experience in the decommissioning of similar nuclear facilities,*" it appears that he endorses Dr. Weisenmiller's concerns. HSS/ARI M.B. at 66.

Based upon the foregoing, HSS/ARI submit that Duquesne has not demonstrated the known and measurable costs of nuclear decommissioning, let alone demonstrated the amount of any such costs that Duquesne will be unable to recover through its sales of generation in a competitive market. Thus, HSS/ARI submit that the Commission should not reach a determination today concerning nuclear decommissioning costs that are not known and measurable and which Duquesne has not shown are stranded. Accordingly, Duquesne's request for $57.4 million in alleged nuclear decommissioning costs should be rejected. HSS/ARI M.B. at 67.

As an alternative, if the Commission believes it must address the issue of nuclear decommissioning costs at this time, HSS/ARI support Dr. Weisenmiller's proposal that the Commission retain an independent expert in the field to perform an audit as described in Dr.

Weisenmiller's testimony. HSS/ARI St. 1 at 72-74. Further, given the magnitude of these costs, Duquesne must bear some cost responsibility for a forecast error if a decommissioning amount is specified in this proceeding either as a result of an independent audit, adoption of LaGuardia's testimony or any other procedure. Specifically, HSS/ARI recommend adoption of the risk-sharing mechanism under which ratepayers are responsible for 75% of any over- or under-collection of decommissioning costs as described by Dr. Weisenmiller. Id. at 77. Accordingly, utility shareholders would be responsible for 25% of any forecasting error associated with the decommissioning cost estimate that the Commission may ultimately adopt. Id.; HSS/ARI M.B. at 67.

As part of that proposal, HSS/ARI also recommend that the Commission establish a balancing account to recover actual decommissioning costs. Id. at 76. In this proposed account, any increases or decreases in decommissioning costs that arise from comparison of actual expenditures to the Commission-approved estimated decommissioning costs would be shared by ratepayers and shareholders. Id. at 76. Moreover, the Commission could require Duquesne to account for items such as land values that Duquesne and LaGuardia heretofore have failed to consider in assessing plant values. N.T. 664-666. Absent such a balancing account, Duquesne could fail to correctly identify potential offsetting items, which Duquesne admits are difficult to predict with certainty. N.T. 665. Further, in such balancing account, ratepayers should be credited with the amount obtained by Duquesne in its 1994 settlement with General Electric concerning the Perry 1 GE Mark III reactor. HSS/ARI St. 1 at 75-76; HSS/ARI M.B. at 67-68.

(f) **The PRA's Position**

The PRA finds Duquesne's request for nuclear decommissioning costs consist of two components tied to its two-part stranded cost recovery proposal. The first component consists of Beaver Valley 1 and 2 and Perry decommissioning accruals which, under its proposal, are continued at currently authorized levels and then summed for the seven years of the CTC recovery period. DII St. 3 at 31. The second component is the net present value at December 31, 2005 of the additional nuclear decommissioning accruals remaining after summing the seven years of CTC recovery at current levels. Id.; PRA M.B. at 54.

The Company, unfortunately, has not properly computed its claim. First, its quantification as of December 31, 2005 is inappropriate and should be quantified at December 31, 1998. Id. Second, Duquesne's computations fail to incorporate trust fund earnings. Id.; PRA M.B. at 54.

The total nuclear decommissioning stranded costs for the above nuclear plants should be calculated as proposed by DII. DII has calculated the net present value of such costs as follows:

> To compute the total stranded decommissioning cost, I utilized [Duquesne's] decommissioning cost estimates for each unit in 1997 dollars, escalated those cost estimates to the year of retirement plus the number of years representing the mid-point between the retirement year and the end of the post-retirement disbursement period by 2.5% annually, incorporating returns on a trust fund balance of 7.5%, and assumed post-retirement earnings on the trust fund balance to the same year as I escalated the cost estimate. I then discounted the net future year deficiency for each unit to December 31, 1998 utilizing the Company's after-tax cost of capital. The 2.5% cost escalation and 7.5% trust fund assumptions were provided by the Company.

Id. at 32. The Commission should permit a nuclear decommissioning cost recovery level of $42.959 million on a net present value basis for Duquesne's nuclear plants. PRA M.B. at 55.

The PRA asserts nuclear decommissioning costs must be valued at January 1, 1998 and not at the "final valuation" date requested by Duquesne. Further, those costs must be quantified on a net present value basis. These costs must reflect trust fund earnings as required by the Act. PRA R.B. at 17.

(g) The Environmentalists

(i) Introduction

The Environmentalists note the operating licenses of Duquesne's three nuclear units will expire in 2016 (Beaver Valley I), 2026 (Perry I) and 2027 (Beaver Valley II). The Company estimates that its total nuclear decommissioning obligation is $312 million, of which only $34 million is funded.[96] Duquesne proposes to continue to collect $9 million per year towards its nuclear decommissioning obligation as part of its stranded cost recovery, and in January, 2006, the unfunded balance will be treated as "a reduction in any residual value of its generating plant.[97] Env. M.B. at 16.

The Environmentalists' witness Bruce Biewald[98] suggested that the goals for the Commission's nuclear decommissioning funding policy should be:

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[96] Duquesne St. 4 at 17. The costs are year-end 1996 expressed in year-end 1996 dollars.

[97] Duquesne St. 4 at 17.

[98] Env. St. 2 at 30.

1. adequacy of the funds to decommission the plants in a safe and timely manner;

2. equity between customers and shareholders, and across generations; and,

3. efficiency, provided by a framework giving the plant operator responsibility for some portion of the decommissioning costs as an appropriate incentive to control the costs of the decommissioning project. Env. M.B. at 17.

(ii) Uncertainty

Dismantling large, highly radioactive nuclear units is a large, complex undertaking for which experience is currently quite limited, and regulations continue to evolve. It is not possible now to produce an accurate estimate for the cost of decommissioning Duquesne's nuclear capacity. Any current estimate of nuclear decommissioning costs is subject to considerable uncertainty - technical, economic and regulatory. In addition, the possibility of nuclear plant shutdown prior to the license termination date is a major concern because decommissioning funding is based upon the full license period. If a nuclear unit is retired prior to the license termination date, there will be a funding deficiency, in some cases of considerable magnitude. Several nuclear units have shut down already prior to the end of their 40-year Nuclear Regulatory Commission license and further shutdowns are likely as nuclear plants are increasingly subjected to market forces. Env. M.B. at 17-18.

The nuclear decommissioning cost estimates for dismantling a large pressurized water reactor are about 600% higher (in real dollars) today than they were in 1976, with the cost estimates doubling every seven to eight years.[99] Env. M.B. at 18.

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[99] Env. St. 2 at 32-33

(iii) Incentive to Control Costs

To quite an extent, nuclear decommissioning costs are within the control of the plant owner. There is a clear relationship between routine plant operation and future nuclear decommissioning costs. Running the plant today in a very clean manner (e.g., regular decontamination of equipment, removal of radioactive waste, etc.) will somewhat increase current operation costs, but lower decommissioning costs. Moreover, good planning and cost control measures for the decommissioning process that reduce the total exposure for decommissioning would translate into stranded cost reductions. Env. M.B. at 18.

Unfortunately, Duquesne has offered no evidence that it has a program in place to minimize the cost of its nuclear de-construction program. While the Environmentalists fully support the principle that adequate funds be made available to decommission the plants in a safe and timely manner, the ratepayers need the Company to minimize these costs to the greatest extent practicable. Id.

The Environmentalists believe that it is unreasonable to have the wires charge be the sole means for funding the Company's nuclear decommissioning obligations. This would provide a subsidy to the continued operation of the plant and remove all incentives for Duquesne to control future decommissioning costs. Customers should not be saddled with an open-ended obligation to bear all of these costs. Instead, the Commission should adopt a framework for decommissioning in which the risks are shared between the Company and its customers. While it may be reasonable to fund some portion of decommissioning costs through the CTC, the Commission should consider the problems that occurred in the past when cost-based regulation

was applied to the large, complex, expensive and uncertain project of nuclear plant construction. Id. at 19.

(iv) Mitigation of Decommissioning Costs

The Environmentalists contend that Duquesne has not addressed the issue of stranded cost mitigation as it relates to nuclear decommissioning, and that the Commission should require a plan for and evidence of such mitigation prior to approving CTC recovery of stranded costs. Duquesne's decommissioning obligation as currently forecast by the Company is large. It could be larger still, with further increases in nuclear decommissioning cost estimates and further requirements for spent fuel storage and disposal. Therefore, we believe the Act requires Duquesne to undertake clear and significant efforts to mitigate its future nuclear stranded investment. Id.

Since decommissioning is a process that hasn't taken place yet, there are opportunities for mitigation that are not possible for some other stranded costs. For example, good planning and cost control measures for the decommissioning process that reduce the total cost exposure for decommissioning would translate into stranded cost reductions. There is no evidence of a comprehensive Duquesne program to minimize the cost of this de-construction program. This would be hands-on mitigation, not just shifting costs in time or among the various parties. Id. at 20.

Another mitigation strategy would be accelerating decommissioning funding in order to reduce the fund deficiency. The Company could contribute shareholder dollars to the fund, further reducing the deficiency. Id.

The Commission should require Duquesne to develop a plan for the mitigation of its decommissioning costs. Id.

(v) A Generic Proceeding

The Environmentalists urge the Commission to address the complicated technical and policy issues of nuclear decommissioning in a generic case, in which limited regulatory resources can be used efficiently and a consistent statewide policy can be fashioned. These issues have not gotten the attention they deserve in the restructuring proceedings, and just as it did for the issues of Code of Conduct, universal service and consumer education, a generic proceeding makes good sense for nuclear decommissioning costs. In this proceeding, the Commission could evaluate the amount of decommissioning cost that is dependent upon continued operation of the plants; the degree of uncertainty in the current decommissioning estimates; the activities and costs that are in the "grey area" between nuclear decommissioning and plant operations; and related issues. Id. at 20-21.

(vi) An External Fund

The possibility of early retirement of Duquesne's nuclear stations must be taken into consideration in the design of decommissioning funding plans. Widespread discussion has occurred debating the effect that electric restructuring and competition will have on nuclear power plants. The financial difficulty that a company could then experience from a retiring plant's loss of income is a persuasive reason for the maintenance of an external fund for

decommissioning.[100] Restrictions should be placed upon the use of the decommissioning funds and Commission jurisdiction should be preserved. Id. at 21.

(vii) A Cost-Benefit Analysis

Any proposed increases in customer payments should trigger a cost-benefit analysis justifying the cost increase. In the event that Duquesne requests an increase in decommissioning funding, it must demonstrate, as a material proposition in its claim, that the increase is consistent with an overall economic plan for the unit. For example, if the Company plans to continue operating the unit for which the funding increase is requested, then it should present a cost-benefit analysis that shows that continued operation, with the increased decommissioning funding levels, is the economic course of action. Id. at 21-22.

(viii) Spent Nuclear Fuel and Radioactive Waste

The treatment of spent nuclear fuel should be clarified and adjusted. Not unlike the removal and disposal of ash from coal-fired units, the handling, storage and disposal of spent fuel rods at nuclear generating stations are a part of ongoing operations and maintenance and should be treated as such by the Commission. With regard to low level radioactive waste storage, the Environmentalists are concerned that the rate treatment proposed by Duquesne creates incentives for excessive storage of waste on site. Id. at 22.

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[100] Env. St. 2 at 7.

(h) Recommendation

Substantial evidence supports the position of the OCA, as does apparently the Commission's decision in Pa. P.U.C. v. Pennsylvania Power & Light Company, 85 Pa. P.U.C. 306 (1995). Therefore, I recommend the Commission adopt the OCA's proposed adjustment to the Company's claim for nuclear decommissioning costs.

2. Fossil Decommissioning

(a) Duquesne's Proposal

Duquesne notes in PECO Energy, the Commission held that "[p]rospective fossil decommissioning expenses are not recoverable . . . as a stranded cost, because they are not 'known and measurable' without a specific plan to decommission a particular plant at a particular time and in a particular manner." PECO Energy, Slip Op. at 92. Duquesne agrees that forecasts of this nature do not meet the "known and measurable" standard; that is the fundamental premise of Duquesne's market-based proposal. However, the issue in this case is whether decommissioning forecasts stand alone in their fallibility; clearly, they do not. A perfect example is Mr. Kahal's "life extension" projection which reflects, in the words of PECO Energy, "[p]rospective . . . expenses [and revenues] . . . without a specific plan to [life extend] a particular plant at a particular time and in a particular manner." PECO Energy, Slip Op. at 92. Accordingly, if the Commission finds that PECO Energy controls, the Commission should

reject all other cost and market forecasts having the same flaws, particularly the life extension forecasts of the OCA.[101] Duquesne M.B. at 42-43.

(b) The OTS' Position

The OTS explains fossil decommissioning (referred to as non-nuclear decommissioning in OTS witness Gill's testimony) is the dismantlement, removal and disposal of the components of a non-nuclear generating facility at the end of its useful life. OTS St. 2 at 10. Unlike nuclear decommissioning expenses, the Company's fossil decommissioning expenses have not been funded. Duquesne St. 4 at 18; OTS M.B. at 38.

Duquesne's estimate of fossil decommissioning is $274.4 million (1997$). This estimate is based upon site-specific studies performed by Duquesne consultant Thomas LaGuardia. Duquesne St. 4 at 19; Duquesne St. 13 at 4. Mr. LaGuardia included a contingency factor of approximately 15% which was added to his underlying estimates. N.T. 648-649. Duquesne's stranded costs claim related to the $274.4 million estimate is $66.5 million at December 31, 1998. Duquesne Exh. DJC-20 at 2; OTS M.B. at 38-39.

The Company is not proposing to collect any of this $66.5 million through the CTC during the transition period. N.T. 592. Instead, the Company proposes to treat the unfunded balance as a reduction in any residual value of the generation stations as of January 1,

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[101] Of course, if all such forecasts are not rejected, there is no basis in law or fact for excluding fossil decommissioning expense. As Mr. LaGuardia testified, fossil plants will be dismantled to conform to safety codes; the only question is when and at what cost. Duquesne St. 13 at 49-51. On that issue, Mr. LaGuardia is the only witness that provides such an estimate and, hence, his testimony must be accepted.

2006 that would enter into the final valuation proposed by the Company to be deferred until 2003. Duquesne St. 4 at 4; OTS M.B. at 39.

OTS engineer Darren Gill presented the OTS position in opposition to the Company's fossil decommissioning claim and method of recovery. As stated by Mr. Gill, the Company's $274.4 million estimate, which includes a 2.5% annual inflation factor up to the year of each plant's decommissioning, is improperly inflated again due to the addition of a contingency factor of approximately 15%. OTS St. 4 at 11-12; Duquesne St. 2 at 35; See, also, OCA St. 3 at 20-21; OTS M.B. at 39.

The arguments against inclusion of Duquesne's contingencies for nuclear decommissioning are also largely applicable to Duquesne's inclusion of contingencies for fossil decommissioning. As stated previously, Mr. Gill's opposition to contingency factors is in accord with the Competition Act, which provides that claimed stranded costs must be "known and measurable." 66 Pa. C.S. §2803. As acknowledged by Mr. LaGuardia, the contingency factor was added "to allow for the effect of unpredictable program problems on costs." Duquesne St. 13 at 15. There is simply no way that unpredictable program problems can produce "known and measurable" costs. In fact, Mr. LaGuardia admitted that the level of these costs was not known. Duquesne St. 13 at 22-23; N.T. 649-653; OTS M.B. at 39-40.

In addition, the Commission explicitly rejected a request of PP&L to include a similar contingency factor in its decommissioning claim due to its speculative nature. See, Pa. P.U.C. v. Pennsylvania Power & Light Company, supra, 85 Pa. P.U.C. at 344. The Commission also rejected PECO's entire fossil decommissioning stranded cost claim in the PECO Energy, supra at 91-92; OTS M.B. at 40.

In conclusion, an increase in decommissioning estimates through contingency factors, as Mr. LaGuardia has done, is clearly an improper inflation of costs and should be rejected. OTS St. 2-SR at 3. The effect of removal of the contingency factor from the Company's total fossil decommissioning expense estimate of $274.4 million in 1997 dollars is $41.6 million, for a total remaining decommissioning expense estimate of $232.8 million. See, OTS Exh. 2, Sch. 3; OTS M.B. at 40.

OTS witness Gill also disagreed with Duquesne's proposed method for recovery of estimated fossil decommissioning costs. As stated previously, Duquesne proposes to treat the unfunded fossil decommissioning expense as a reduction in any residual value of the generating stations as of January 1, 2006 that would enter into the final valuation proposed by the Company to be deferred until 2003. Duquesne St. 4 at 4; N.T. 592. However, if the residual balance of generation plant is negative at January 1, 2006, before the Company deducts the unfunded fossil decommissioning from the plant valuation, the Company reserved the right to extend the CTC beyond 2005 to collect the unfunded portion. OTS Cross Exh. 4; OTS M.B. at 40-41.

By January 1, 2006, the Company acknowledged that its generating plants could be generating power which is sold to retail customers outside of Duquesne's service territory. In addition, the Company agreed that by January 1, 2006, some portion or even all of Duquesne's customers could be buying generation from sources other than Duquesne but could still be Duquesne's distribution customers. N.T. 594. Under these circumstances, if recovery of fossil decommissioning is permitted to occur through extension of the CTC, as Duquesne said it could request, then, as acknowledged by the Company, Duquesne's distribution customers would be paying the entire fossil decommissioning costs but may not be buying generation from

these plants. On the other hand, Duquesne's generation customers (who are actually receiving power from these plants) are paying nothing towards decommissioning (unless they are also distribution customers). OTS Cross Exh. 6; 41.

Mr. Gill's recovery recommendation would remedy this recovery inequity wherein all fossil decommissioning costs are allocated to current regulated customers and none are allocated to deregulated generation customers. OTS St. 2 at 14. Mr. Gill accomplished this by first removing all fossil plant decommissioning costs from Duquesne's market value analysis. He then performed a net present value analysis of the Company's $274.4 million estimate by applying the Company's annual inflation factor of 2.5% to each remaining year of the plant service lives and then reducing the value each year by the OTS 7.43% discount rate to derive a total fossil decommissioning estimate (total of all fossil plants), net present valued at January 1, 1999 dollars, of $67.843 million. OTS St. 2 at 16; OTS Exh. 2, Sch. 4 and Sch. 5; Duquesne St. 2 at 35; OTS M.B. at 42.

Mr. Gill then removed the 15% contingency from each plant's decommissioning estimate amount, as shown on OTS Exh. 2, Sch. 5. The result is the amount OTS believes it will cost to decommission each plant (total NPV of $57.609 million). Mr. Gill then derived an in-service ratio for each fossil plant as of January 1, 1999, which represents the percentage of that plant's service life, using the Company's service lives, which was dedicated solely to providing service to Duquesne's regulated customers. See, OTS Exh. 2, Sch. 5. The in-service percentage ratio for each plant was then applied to the net present valued decommissioning costs for each plant to derive a total fossil decommissioning recovery level of $41.605 million, to be recovered from regulated customers through the CTC. The balance of decommissioning costs

(i.e., the difference between the $57.609 million and the $41.605 million or about $16 million) should be recovered from the competitive generation market. OTS St. 2 at 14-16, 19; OTS M.B. at 42-43.

In the Appendix to OTS' Main Brief, Table 3, the amount of "disallowance" is shown to be $24.9 million, which is a "fallout" number for illustrative purposes. The $41.6 million OTS "allowance", as shown in the Appendix, Table 3, is based on Mr. Gill's "bottoms up" approach of building up to a proper fossil decommissioning expense stranded cost allowance. OTS M.B. at 43.

In addition, Mr. Gill recommended that Duquesne be required to place all funds received for fossil plant decommissioning into a non-qualified trust fund. As stated by Mr. Gill, and not refuted by the Company, requiring the Company to place all funds received for fossil decommissioning into a non-qualified trust is the only means to ensure that funds contributed for decommissioning will be available at the time the plants are actually decommissioned. Otherwise, the Company could use the funds for any purpose and the funds may not be available when needed. If this occurs, funds that have already been provided by ratepayers will have to be duplicated by future taxpayers in the event the federal government or other entity is required to perform the decommissioning. OTS St. 2 at 17-18; OTS M.B. at 43.

Mr. Gill's fossil decommissioning funding recommendation is reasonable and should be adopted. Also, for all the reasons set forth herein, Mr. Gill's recommended fossil decommissioning amount and recovery methodology for regulated customers should be approved and the Company's proposal should be rejected. OTS M.B. at 44; OTS R.B. at 10-11.

(c) **The OCA's Position**

The OCA notes Duquesne has also included costs for fossil decommissioning in its stranded cost claim. To determine this amount, the Company deducted the present value of its claimed fossil decommissioning liability from the estimated market value of its generating units as of December 31, 2005. OCA St. 3 at 20; OCA M.B. at 49.

The OCA submits that Duquesne's claimed fossil decommissioning costs are not properly included in the stranded cost calculation and are not recoverable in this proceeding. In his testimony, OCA witness Catlin explained that fossil decommissioning costs are not properly recovered as a stranded cost. Mr. Catlin set forth the following reasons: (i) there is a great deal of uncertainty over whether dismantling and decommissioning of the fossil facilities will actually occur, and if so, when it will occur; (ii) if the Company actually does decommission and dismantle the site, existing generation sites can be quite valuable, as the site contains all the necessary infrastructure to locate a new generation facility, or may have value for other purposes, benefits not recognized in the studies; and (iii) the costs of decommissioning a generating unit are not only applicable to Duquesne but to every electric supplier, and it would be unfair to require Duquesne's ratepayers to fund these costs in advance when competitors will have to derive necessary funds from the market. OCA St. 3 at 21-22; OCA M.B. at 49-50.

The Commission recently rejected PECO's claim for fossil decommissioning costs. It stated that "[the Company's] claim for separate recovery of future costs related to fossil plant decommissioning expenses cannot be approved because future or prospective fossil plant decommissioning expenses are not traditionally recognized in rates in Pennsylvania." PECO Order at 91. The Commission explained its reasoning stating:

> Prospective fossil decommissioning expenses are not recoverable under traditional ratemaking or as a stranded cost, because they are not "known and measurable" without a specific plan to decommission a particular plant at a particular time and in a particular manner. At this point in time, the record contains no evidence that any particular existing plant will in fact have to be decommissioned at all, when such decommissioning might occur, the extent of decommissioning that will be required, the future use of the plant and its site, or the cost of the decommissioning found to be needed. At this point in time, no one knows whether a generation plant will require total dismantling to "greenfield" status or some other less expensive level of dismantling. Depending on the future use, existing plants connected to the transmission system and their sites may have significant residual "salvage" value, partly offsetting, or even surpassing any cost of decommissioning.

PECO Order at 92; OCA M.B. at 50

Therefore, for the reasons stated above, as well as the Commission's decision in the PECO proceeding, the OCA submits that Duquesne's claim for fossil decommissioning expense is not recoverable as a stranded cost under the Act, and should be disregarded.[102] Id.

The OCA notes the issue at hand is not whether or not decommissioning forecasts stand alone in their fallibility, as Duquesne argues, but whether recovery of fossil decommissioning costs as a stranded cost should be permitted under the Act. The question of life extension goes to whether ratepayers are receiving the benefit of all possible mitigation steps before having to pay stranded costs. OCA R.B. at 14.

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[102] However, if fossil decommissioning costs are to be recognized, OCA witness Catlin remarked that two adjustments should be made to the Company's calculation. First, the contingency factor for the decommissioning cost estimates should be reduced from 15% to 10%. OCA St. 3 at 22. Second, Mr. Catlin noted that OCA witness Kahal has recommended life extensions for several of Duquesne's coal-fired facilities. OCA St. 1 The OCA submits that fossil decommissioning costs should take into account the potential for longer lives.

The Commission, in PECO, clearly found that it would not provide recovery for fossil decommissioning while at the same time reflecting life extension. The Act provides that to be considered as a "stranded cost," items must be both known and measurable, and also have traditionally been recoverable under a regulated environment. 66 Pa. C.S. §2803. Duquesne, itself, admits that these costs do not meet the "known and measurable" standard and, as the Commission found, under traditional regulation, consumers do not necessarily pay any costs for fossil decommissioning. Duquesne M.B. at 43; PECO Order, Slip Op. at 91.

Additionally, the OCA submits that fossil decommissioning costs are not only applicable to Duquesne, but to every electric supplier, and it would be unfair, and provide Duquesne with a competitive advantage, to require Duquesne's ratepayers to fund these costs in advance when competitors will have to derive these funds from the market. OCA M.B. at 50; OCA R.B. at 14.

For all of these reasons, the OCA submits that the Company's claim for fossil decommissioning costs should be denied. Id.

(d) DII's Position

DII states Duquesne includes the projected costs of decommissioning fossil generation units as part of its generation stranded cost claim. Duquesne St. 4 at 18-19. Future fossil decommission costs do not qualify as "stranded costs" under the Act. First, future fossil decommission costs are not recoverable under the applicable PUC and Pennsylvania appellate court precedent. Penn Sheraton Hotel v. Pennsylvania Public Utility Commission ("Penn Sheraton"), 198 Pa. Superior 618 (1962); PECO Energy, Slip. Op. at 91-92. Second, the

amount of such decommissioning cost is speculative at this point and does not satisfy the Act's requirement that any stranded generation costs be "known and measurable." Id.; DII M.B. at 49.

Commission allowance of Duquesne's claim for fossil decommissioning cost would be contrary to the long established precedent of the Pennsylvania appellate courts and the Commission that such costs are not recoverable until they have been actually incurred. In Penn Sheraton, the Superior Court held that a prospective loss in excess of the salvage value of the property that a utility may incur upon the retirement of that property in order to remove the property was not properly recoverable in a utility's rate base. Penn Sheraton, 198 Pa. Superior at 623. The court based its decision on the uncertainty associated with prospective negative salvage because the known and measurable cost had not been incurred at the time of the proceeding. Id. at 625-26. The same uncertainty exists with Duquesne's future fossil decommissioning claim in this proceeding. See, DII St. 3 at 26-28; DII M.B. at 49.

The Commission consistently adheres to this precedent with respect to future fossil plant decommissioning. For example, in 1980, the Commission rejected an attempt by West Penn Power to include in its rates an annual expense of $124,000 for prospective negative net salvage with regard to the retirement of fossil fuel plants. Pennsylvania Public Utility Commission v. West Penn Power Company, Docket No. R-80021082, (Opinion and Order entered on January 30, 1981), 54 Pa. P.U.C. 602, 629 (1981); DII M.B. at 49-50.

The Commission also rejected recovery for prospective fossil decommissioning as a stranded cost pursuant to Chapter 28. PECO Energy, Slip Op. at 92. As DII explains, the

completely speculative nature of Duquesne's claim for future fossil decommissioning mandates rejection. DII St. 3 at 26-28; DII M.B. at 50.

Future fossil decommissioning expenses are not recoverable as stranded costs under the Act. The costs are not recoverable under traditional ratemaking. The costs are not "known and measurable." Consequently, DII requests the Commission reject Duquesne's claim for future fossil decommissioning expenses. Id.

The DII argues Duquesne inappropriately attempts to extend the reach of the Commission's PECO decision to state that all costs and market forecasts presented in this proceeding must also be rejected because they do not meet the "known and measurable" standard. Duquesne M.B. at 43. Duquesne's argument by extension is inherently flawed and must be rejected. The Commission's decision in the PECO proceeding rests on two bases. DII M.B. at 49-50. First, the Commission's decision rests on the fact that future fossil decommissioning costs do not satisfy the Act's "known and measurable" requirement. Id. (citing PECO Energy, Slip Op. at 91-92 & Penn Sheraton Hotel v. Pennsylvania Public Utility Commission, 198 Pa. Superior. 618 (1962)). Second, future fossil decommissioning costs are not recoverable under applicable PUC and appellate court precedent. Id. (citing Penn Sheraton). The cost must be both "known and measurable" and "traditionally . . . recoverable under a regulated environment" to qualify as a stranded cost under the Act. 66 Pa. C.S. §2803. Because future fossil decommissioning expenses are not traditionally recoverable in a regulated environment, fossil decommissioning expense should be excluded from recovery as a stranded cost. The Company's claim for future fossil decommissioning expenses must be rejected. DII R.B. at 26.

(e) **HSS/ARI's Position**

HSS/ARI argue future or prospective fossil plant decommissioning expenses are not traditionally recognized in rates in Pennsylvania, nor do they satisfy the known and measurable test for recovery as stranded costs. PECO at 91-92 (citing Penn Sheraton Hotel Co. v. Pennsylvania Public Utility Commissionn, 198 Pa. Superior 618, 184 A.2d 324 (1962)). Accordingly, Duquesne is not entitled to recover fossil decommissioning costs. HSS/ARI M.B. at 68.

Moreover, a recent Commission Staff audit casts significant doubt as to the accuracy of Duquesne's claimed fossil decommissioning costs in any event. See, Exh. RBW-26. In that audit, Commission Staff sampled Duquesne's property records and found that plant balances were overstated by over $2 million, in part, due to unrecorded retirements or items not devoted to utility service. Id. Obviously those costs should not be collected from ratepayers. Moreover, the Commission Staff's audit was by no means comprehensive. Staff sampled only 95 of 350 work orders. Of those 95, Staff inquired about 35 and received either incomplete or unsatisfactory answers with respect to 25 - more than 25% of those work orders sampled. Exh. RBW-26 at 4-5. Thus, the audit results provide a ground, independent of the PECO Order, demonstrating that Duquesne's claimed fossil decommissioning expenses in particular, do not satisfy the known and measurable standard. HSS/ARI M.B. at 68-69.

(f) **The PRA's Position**

The PRA also notes Duquesne has made a claim for fossil fuel decommissioning costs. It has projected the cost of decommissioning its fossil fuel plants and relies upon three

studies performed by TLG Services. DII St. 3 at 26. Such studies are highly speculative in that they are "the result of assumptions premised upon assumptions." Id. Inherently unreliable fundamental assumptions include a premise that fossil plants will actually be retired permanently at the end of their book life and that the costs to fully dismantle are now known and measurable. Id. at 27. Due to the speculative nature of such projections, the Commission historically has rejected such proposals. Id. at 28-29. Thus, the Commission should reject Duquesne's proposal to recover projected fossil fuel decommissioning costs as a portion of stranded investment. PRA M.B. at 55-56; PRA R.B. at 17.

(g) Recommendation

Since PECO Energy apparently controls this issue, I recommend the Commission deny the Company's claim for fossil plant decommissioning costs in its entirety.

E. Regulatory Assets and Liabilities

1. Introduction

A second category of stranded costs for which Duquesne may seek recovery through the CTC is "regulatory assets and liabilities." 66 Pa. C.S. §2803. In order to be claimable as stranded costs, regulatory assets must be "known and measurable" and traditionally recoverable under current regulatory practice but not recoverable in the competitive market. Id. The Commission must quantify the amount of any properly claimed stranded regulatory assets. The Act requires that valuation of stranded regulatory assets be on a NPV basis. Id. In addition, regulatory assets must be "net electric generation-related costs" stranded by the

transition. This netting concept contains two components. First, any costs claimed as stranded regulatory assets cannot also be recovered in any other part of Duquesne's restructuring filing (e.g., as a stranded generation cost or as part of other regulated rates). Id. Second, any costs claimed as stranded regulatory assets must be netted against any regulatory liabilities.

The Company claims regulatory assets and liabilities of $357,280,000 net of taxes. Duquesne M.B., Tables at 4.

2. Disputes Regarding Specific Claims

(a) SFAS 109 Deferred Taxes

(i) Duquesne's Proposal

The Company claims $179 million, net of taxes, for SFAS 109 deferred taxes. Duquesne M.B., Tables at 4. Duquesne explains its claim was described and supported by Mr. O'Brien, Duquesne St. 4 at 8-9, and Mr. Clayton, Duquesne St. 2-R at 19-22. The OTS, OCA and DII support recovery of it. Duquesne Exh. DJC-10. The FERC Staff reviewed and accepted the entry. Duquesne St. 2-R at 21. PECO Energy approved the SFAS 109 asset proposed in that case. PECO Energy, Slip Op. at 68-70. Only HSS opposes it, applying the wrong standard. The HSS position should be rejected.[103] Duquesne M.B. at 45.

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[103] Duquesne notes that the SFAS 109 plant balance (relating to AFUDC) is included in plant, not as a regulatory asset, Duquesne Exh. DJC-10; this is consistent with the OCA method. OCA Exh. TSC-1.

(ii) The OCA's Position

The OCA notes Duquesne sought recovery of its SFAS No. 109 obligation as a regulatory asset. There are two components to Duquesne's SFAS No. 109 obligation, explained by OCA witness Catlin as follows:

> One component of this future tax liability is the future tax obligation associated with tax-book timing for which the benefits have been flowed through to ratepayers. Duquesne has identified this as its "regulatory tax receivable." A second component of this future tax liability relates to the differences between the costs capitalized as part of plant costs for book purposes (basis differences). This component is primarily attributable to the fact that the allowance for funds used during construction (AFUDC) on Duquene's nuclear units was recorded on a net of tax basis. Duquesne has identified this future tax liability as "SFAS No. 109 plant."

OCA St. 3 at 16. The OCA's adjustment relates to the "SFAS No. 109 plant." OCA M.B. at 51.

Duquesne, under its methodology proposed in the case, removed the SFAS No. 109 plant tax liability from the balance of plant in service and included it as regulatory asset. OCA St. 3 at 16. The OCA does not dispute that this was necessary under the Company's approach to properly recover the SFAS No. 109 plant obligation. However, under the OCA's analytical framework, this adjustment must be reversed. OCA witness Catlin explained:

> This is necessary because the SFAS No. 109 plant tax liability is included in the plant balances associated with the Company's nuclear generating units as of December 31, 1998. Since Mr. Kahal is utilizing the plant balances as of December 31, 1998 to determine stranded costs, he has already accounted for the SFAS No. 109 plant tax liability in his analysis and it is unnecessary to also include this balance as a regulatory asset.

OCA St. 3 at 17; OCA M.B. at 51-52.

Duquesne witness Clayton acknowledged in rebuttal testimony that this balance could properly be reclassified, as Mr. Catlin recommends. Duq. St. 2R at 18. The removal of the SFAS No. 109 plant balances reduces the balance of Duquesne's regulatory asset claim by $62.94 million. The OCA and Duquesne agree that this represents the proper net present value of this obligation. OCA M.B. at 52.

(iii) DII's Position

DII notes in its direct case, Duquesne reclassifies the FAS 109 related asset for Perry and Beaver Valley 1 from "plant in service" to a regulatory asset. Duquesne St. 2-R, Exh. DJC-21 at 78. This regulatory asset is valued by Duquesne at $62.940 million at December 31, 1998. Duquesne St. 2-R, Exh. DJC-21 at 78; DII M.B. at 51.

The SFAS 109 net plant regulatory asset is not properly claimable by Duquesne as a stranded regulatory asset. The claimed regulatory asset is not a "net electric generation-related" cost pursuant to the Act. See, 66 Pa. C.S. § 2803. Prior to claiming the regulatory asset, SFAS 109 net plant was included as "plant in service" for the Perry and Beaver Valley 1 units. DII St. 3 at 10. Inclusion of the SFAS 109 asset increases the net book value of the units. All else being equal, an increase in the net book value of any of Duquesne's generating assets increases the potential stranded generation costs associated with that asset. DII M.B. at 51-52.

After creating the regulatory asset, the Company should eliminate the SFAS 109 asset from its net book value amounts. DII St. 3 at 10-11. In its direct case, the Company fails to do so. The Company's exhibit supporting its regulatory asset claims states: "FAS 109

allocated to plant is reflected in the generating plant balance through 12/31/98." Duquesne St. 2-R, Exh. DJC-21 at 78 n. 5. Thus, Duquesne requests double recovery for the asset amount. DII St. 3 at 10-11. Recovery for these costs is included elsewhere in the Duquesne stranded cost quantification as an increase in the stranded generation cost claim; consequently the claimed asset is not a "net" cost. DII M.B. at 52.

In its rebuttal case, the Company acknowledges DII criticism regarding the SFAS 109 regulatory asset, but neither explains the apparent double recovery, nor offers to rectify the double recovery. See, Duquesne St. 2-R at 19-22. Although the Company offers no testimony regarding the proper solution to the FAS 109 plant double recovery, it appears the Company is adjusting its regulatory asset claim to remove the FAS 109 net plant asset. Specifically, the Company's Exh. DJC-10 states the claim for "SFAS 109 Plant" as "0.00" and notes that the FAS 109 related asset is "included in plant as of 12/31/98." Duquesne St. 2-R, Exh. DJC-10. DII agrees that this represents the proper resolution of the "double recovery" problem.

> DII witness Mr. Falkenberg has included the FAS 109 asset in the December 31, 1998 net book value utilized in the DII quantification of generation stranded costs. I have eliminated the FAS 109 asset from the Company's claimed regulatory assets. Thus, DII has included the FAS 109 asset only once in its quantifications of stranded costs.

DII St. 3 at 11. DII's method is preferable because it represents the status quo as of the effective date of the Act with regard to these costs. The DII stranded cost recommendation continues to include FAS 109 assets in the 1998 net book value for Duquesne's generating assets. Id.; DII M.B. at 52-53.

Because the Company's request for inclusion in its stranded cost calculation of an SFAS 109 plant regulatory asset would lead to double recovery of those costs as both a

regulatory asset and stranded generation cost, the SAS 109 plant regulatory asset is not a "net" stranded cost under the Act. DII submits that SFAS 109 net plant should remain part of the net book value of the Perry and Beaver Valley 1 generating units and that Duquesne's claimed regulatory asset of $62.90 million be denied. Id. at 53.

DII notes although it appears the Company eliminates the double recovery in Exhibit DJC-10, the Commission must ensure this actually occurs. DII M.B. at 52; DII R.B. at 27.

(iv) HSS/ARI's Position

HSS/ARI note in its application, Duquesne sought to recover as a regulatory asset a regulatory tax receivable of $304.94 million. Duquesne St. 4 at 8; Exh. DJC-4 at 1; Exh. RBW-33. In its rebuttal testimony, Duquesne reduced that claim to $179 million on a net present value basis. HSS/ARI opposes Duquesne's recovery of that amount for two fundamental reasons. HSS/ARI M.B. at 69

First, and as previously discussed, Duquesne has not had a rate case in more than ten years as a result of its own decision not to subject its costs to regulatory scrutiny. Thus, there is no finding that Duquesne's capital expenditures during that ten-year period were just and reasonable. Now Duquesne wishes to claim as a regulatory asset a regulatory tax receivable of $179 million on a net present value basis that partly depends on Duquesne's capital expenditures that never have been reviewed. Thus, Duquesne is attempting to bootstrap a deferred tax claim that is predicated on capital additions that Duquesne is not already entitled to recover. HSS/ARI St. 1 at 107. Accordingly, Duquesne's request conflicts with the Commission's ruling in PECO

that stranded costs recoverable under "Section 2808(c)(1) includes regulatory assets and other deferred charges that are not presently included in rates but which the utility is already entitled to recover through future rate adjustments." PECO Order at 66 (emphasis added). HSS/ARI M.B. at 69-70.

Second, Duquesne's argument in support of its claim is that:

> this regulatory asset was booked in recognition of the fact that the tax benefits will "turn around" in the future, leading to a higher tax expense which must be paid by the Company. At that time, however, the plant which gave rise to the accelerated depreciation will no longer be in jurisdictional rates. Ratepayers, therefore, would have gotten the benefit of lower rates in the past due to the tax advantages of the accelerated depreciation, but also would be able to avoid the higher tax bill in the future when the assets which gave rise to be (sic) depreciation become deregulated.

Duquesne St. 4 at 8-9; HSS/ARI M.B. at 70.

However, Duquesne's justification is inconsistent with fact. Because Duquesne did not file a rate case for more than ten years, the tax advantages that Duquesne claims were not flowed through to ratepayers in the form of reduced rates. Rather, as shown, supra at 15, Duquesne has flowed through any such tax advantages exclusively to its shareholders. Accordingly, the Commission should not authorize Duquesne's recovery of the claimed $179 million as a regulatory asset. HSS/ARI M.B. at 70.

(v) The PRA's Position

The PRA notes Duquesne has reclassified the SFAS 109 related asset for Perry and Beaver Valley 1 from plant-in-service to a regulatory asset. DII St. 3 at 10. Thus, Duquesne's stranded cost analysis double counts the value of the asset once in plant-in-service

and once as a regulatory asset. Id. The amount of the SFAS 109 asset related to plant to should be included in the Duquesne qualification of generation related stranded costs only. PRA M.B. at 56-57.

(vi) Recommendation

To avoid the admitted "double recovery" problem, I recommend for adoption the approach of the OCA. Adoption of this recommendation will allow for consistency in application of the analysis for the recovery of stranded costs. Accordingly, the Company's SFAS 109 obligation should be treated as a tax liability from the balance of plant in service and not as a regulatory asset. This adjustment reduces Duquesne's regulatory asset claim by $62.94 million.

(b) Unamortized Debt Costs

(i) Duquesne's Proposal

The Company claims pre-2006 unamortized debt costs of $9.8 million and post-2005 unamortized debt costs of $19.04 million. Duquesne M.B., Tables at 4. Unamortized debt costs were described by Mr. O'Brien, Duquesne St. 4 at 9-10, and Mr. Clayton, Duquesne St. 2-R at 22-24.[104] The OTS and OCA support recovery of it. Duquesne Exh. DJC-10. It appears that PECO Energy approved unamortized debt costs in that case pursuant to the OCA methodology. PECO Energy, Slip Op. at 76. DII and HSS, however, oppose its recovery.

[104] It is noted that the unamortized debt costs associated with Beaver Valley 2 are included in plant, not as a regulatory asset, Duquesne Exh. DJC-10, which is consistent with the OCA approach. OCA Exh. TSC-1.

HSS advances the meritless claim that Duquesne should amortize the cost over the life of its generating units, not the transition period, HSS St. 1 at 109; this obviously misses the point of Section 2808, which contemplates recovery of stranded costs in a CTC over the transition period. The DII approach is inconsistent with PECO Energy and should be rejected. Duquesne St. 2-R at 23; Duquesne M.B. at 45-46.

(ii) The OCA's Position

The OCA explains based on its overall approach to determining stranded costs, Duquesne divided its unamortized debt costs into two components. OCA St. 3 at 7. OCA witness Catlin explained these components as follows:

> The first component is the portion of those costs which will be recovered through interest expense in the year 1999 through 2005 as part of the Company's revenue requirements. The second component is the portion of the unamortized debt costs which would otherwise be recovered as interest expense subsequent to 2005. This second component was treated as a generation-related regulatory asset.

OCA St. 3 at 7; OCA M.B. at 52.

Under this method, Duquesne included $29.92 million of unamortized debt costs as a regulatory asset and identified an additional $16.76 million of unamortized debt costs as being recovered through interest expense, for a total of $46.68 million. OCA St. 3 at 8; OCA M.B. at 52.

The OCA, however, is recommending a different approach to the determination of stranded costs - specifically that a determination of stranded costs be made as of December 31, 1998, as described above. As a result of this approach, the full generation-related

balance of unamortized debt costs as of December 31, 1998 should be recognized as a regulatory asset. OCA St. 3 at 7-8. OCA witness Catlin recognized a balance of unamortized debt as of December 31, 1998 of $45.77 million as regulatory asset (exclusive of the unamortized debt costs associated with the Beaver Valley 2 sale/leaseback), which he has proposed to treat as a regulatory asset eligible to earn a return during the recovery period. OCA St. 3 at 8. Since these are treated as a regulatory asset, OCA witness Kahal adjusted Duquesne's claimed cost of debt to exclude recognition of the unamortized debt cost. OCA M.B. at 52-53.

In rebuttal, Duquesne witness Clayton criticized Mr. Catlin's treatment of unamortized debt cots, claiming that such treatment would penalize the Company by reducing its overall cost of capital and raising the apparent leverage of the Company. Duq. St. 2R at 22-23. The Company's argument is incorrect and should be rejected. As OCA witness Catlin explains:

> The argument that the Company is penalized is simply not accurate. The treatment which the OCA has afforded unamortized debt costs assures the Company of full recovery of those costs by amortizing the balance over seven years and providing a return on the unamortized balance. The reduction to Duquesne's overall rate of return which results from excluding unamortized debt costs is offset by my adjustment to increase the regulatory asset attributable to unamortized debt costs by $16.76 million compared to the Company's claim.

OCA St. 3S at 4; OCA M.B. at 53.

The OCA submits that Duquesne's unamortized debt costs as of December 31, 1998 should be treated as a regulatory asset in the amount of $45.77 million, consistent with the testimony of OCA witness Catlin. Id.

(iii) DII's Position

DII notes Duquesne seeks recovery as a regulatory asset for unamortized debt costs. Duquesne St. 4 at 9. The Company quantifies this regulatory asset at $28.84 million at December 31, 1998 on an after tax basis. Duquesne St. 2-R, Exh. DJC-10. On a pre-tax basis, DII recalculates the Company's claim as $50.980 million as of December 31, 1998. DII St. 3 at 11; See, Duquesne St. 2-R, Exh. DJC-15. DII's claim must be denied because it fails to meet the definition of stranded costs under the Act. 66 Pa. C.S. §2803. The Company has included in its stranded cost claim double recovery of these unamortized debt costs. Consequently, unamortized debt costs are not properly claimable by Duquesne as a regulatory asset in this proceeding and DII's proposal for recovery must be rejected. DII M.B. at 53.

The Company's claim for unamortized debt costs has two components. First, the claim contains the unamortized premium on reacquired debt. Duquesne St. 4 at 9. Second, the unamortized debt costs regulatory asset contains a claim for debt issuance expense. Id. at 9-10. Both elements of the proposed regulatory asset are currently recovered as costs of debt. DII St. 3 at 12. The inclusion of these costs reduces debt capitalization, which in turn increases Duquesne's cost of debt. Id.; DII M.B. at 53.

Duquesne's recovery of these costs as a regulatory asset must be denied because these costs are not "net electric generation-related costs" pursuant to the definition of stranded costs in the Act. 66 Pa. C.S. §2803. The unamortized debt costs are currently included in the Company's cost of debt. DII St. 3 at 12.

> The unamortized losses, debt discount, and issuance expenses are utilized to reduce the debt capitalization component and the amortization of these amounts are included in interest expense,

both of which serve to increase the cost of debt and provide for the full recovery of and on these costs.

Id. Despite requesting recovery of these costs as regulatory assets, the Company has not reduced its cost of debt in this filing to remove the costs and reflect recognition of the regulatory asset. Id.; DII M.B. at 53-54.

Continued inclusion of these unamortized debts costs increases Duquesne's cost of debt. The Company's cost of debt is used in this proceeding to discount projected contribution margins after 2005 in determining stranded generation cost recovery. DII St. 3-S at 6. Continued inclusion in the cost of debt thus increases generation-related stranded costs by reducing the NPV of future contribution margins. DII St. 3 at 13. This increase in generation-related stranded costs fully compensates the Company for costs represented by this alleged regulatory asset; separate recovery of these costs as a regulatory asset is unnecessary, unwarranted, and contrary to the Act. DII M.B. at 54.

The Company admits that inclusion of these costs as a regulatory asset and in its cost of debt conceptually represents double cost recovery. Duquesne St. 2-R at 23. The Company claims, however, that the double recovery is irrelevant, if its proposal to value stranded generation costs as of 2005 is accepted by the Commission, because stranded costs will be determined using the Company's cost of debt at 2005. Id.; DII M.B. at 54.

The Company's supporting arguments are inapt and incorrect. As DII and other parties have shown, the Act intends for stranded costs to be determined at a one-time proceeding and valued at December 31, 1998; the Company's proposed delay in the valuation of stranded generation costs is inappropriate. See, DII St. 1 at 23-28; OCA St. 1 at 4-7. The Company is incorrect that a delay in the valuation of generation-related stranded costs will eliminate the

possibility of double recovery. The choice of methodology for a stranded cost valuation in 2005, if one is to occur, could still result in a double recovery of these costs. DII St. 3-S at 9. If the market valuation in 2005 relies on discounted future revenue or income streams, the only way to prevent double recovery would be to ensure that the discount rate used for that calculation excludes interest expenses associated with the unamortized debt cost. Id. Delaying uncertainty regarding the potential for double recovery is unnecessary because evidence exists in this proceeding to require that such costs be excluded from the discount rate so as to assure the non-existence of double recovery if the Company's proposed regulatory asset is accepted. DII St. 3 at 11-13; DII St. 3-5 at 6-10; DII M.B. at 54-55.

Duquesne's regulatory asset claims for unamortized debt costs is inappropriate under the Act. Duquesne fails to remove unamortized debt costs from its cost of debt. Because that unadjusted cost of debt is used to quantify the Company's stranded generation costs, recovery of the unamortized debt costs as a regulatory asset will violate the netting concept in the definition of stranded costs. 66 Pa. C.S. §2803. Duquesne will be adequately compensated for unamortized debt costs in its stranded generation cost claim; consequently, the unamortized debt costs are not properly claimable by Duquesne as regulatory assets under the Act. DII recommends that Duquesne's proposed regulatory asset of $50.980 million be denied. DII M.B. at 55; DII R.B. at 27-28.

(iv) HSS/ARI's Position

HSS/ARI note Duquesne seeks to recover unamortized debt costs as a stranded regulatory asset. The unamortized premium represents the excess of the reacquisition price over

the net carrying amount of certain debt costs. Duquesne St. 4 at 9. However, Duquesne has failed to demonstrate any nexus between the claimed stranded costs and the electric utility restructuring occasioned by the Customer Choice Act. Duquesne Witness O'Brien states only that "[d]ue to restructuring . . ., the Company will not be able to recover fully the unamortized (sic) remainder of the expense." Id. at 10. He does not contend, however, that none of the balance will be recoverable though Duquesne has claimed the entire amount as a regulatory asset. HSS/ARI M.B. at 71.

Duquesne currently amortizes the cost of reacquired debt over the life of the debt. Exh. RBW-47. In this proceeding, Duquesne proposes to recover the entire reacquisition premium during the transition period. Duquesne St. 4 at 9-10. This proposal is not reasonable. Because the regulatory asset portion of these costs was incurred to finance the construction and/or purchase of generating assets, the reacquisition premium and issuance cost should be amortized consistent with Commission policy, i.e., over the remaining life of the debt. Duquesne's generating assets will not disappear in their entirety at the end of the transition period. Operating units (and Duquesne's shareholders) will continue to benefit from the lower debt costs obtained by refinancing in future years. Thus, it would be inequitable to allow Duquesne to realize a benefit while at the same time it recovered a CTC associated with its unamortized debt costs. HSS/ARI M.B. at 71.

One of the central tenets of regulatory policy is to match the cost of a benefit with the benefit itself. Duquesne's proposal ignores that principle by making ratepayers responsible for all of the post-2001 cost of this item while conferring the post-2001 benefit on Duquesne's shareholders. HSS/ARI St. 1 at 109. As Dr. Weisenmiller has testified, if Duquesne divests

its assets, presuming the transaction is a taxable event to Duquesne, any remaining portion of this regulatory asset must be paid down. Id. at 109. Moreover, if Duquesne's generating assets retire prior to full recovery, the remaining balance of the regulatory asset must be recovered at that time through a one-time charge. Id. at 110. Duquesne's rebuttal testimony did not challenge any of these propositions. Therefore, Duquesne's request to recover unamortized debt costs and unamortized premium on reacquired debt as regulatory assets should be denied. HSS/ARI M.B. at 71-72.

(v) The PRA's Position

The PRA agrees with the position of the DII on this subject. PRA M.B. at 58; PRA R.B. at 18.

(vi) Recommendation

I agree with the OCA that the claim for unamortized debt costs should be valued as of December 31, 1998. For that reason, I urge the Commission to adopt the position of the OCA on this claim.

(c) Unamortized Sale/Leaseback Premiums

(i) Duquesne's Proposal

The Company asserts the unamortized sale/leaseback premiums were described and supported by Mr. O'Brien, Duquesne St. 4 at 10, and Mr. Clayton, Duquesne St. 2-R at

24. No party opposes their recovery. These premiums have been included in plant, not as a regulatory asset, Duquesne Exh. DJC-10, consistent with the OCA method. OCA Exh. TSC-1.

(ii) The OCA's Position

As a financing vehicle, Duquesne converted its ownership interest in the Beaver Valley 2 nuclear generating station into a sale/leaseback arrangement. In this proceeding, the Company has included a portion of its claim for this asset as a regulatory asset and a portion as an owned-generation asset. OCA St. 1 at 21. However, Duquesne remains, for all practical purposes, the owner of this asset and, as discussed above, the OCA has included all of the costs of the Beaver Valley 2 sale/leaseback as an owned-generation asset. Id. To that end, OCA witness Catlin calculated the net present value of the lease payments and amortization from 1999 through the end of the lease and provided these numbers to OCA witness Kahal for use in his analysis of owned-generation stranded costs. OCA St. 3 at 9. In making this calculation, OCA witness Catlin used the same amounts for the annual lease payments and the amortization amounts for issuance costs and refinancing premiums as the Company. Id. Mr. Catlin utilized OCA witness Kahal's discount rate of 6.88% to determine the net present value of these costs and then removed $63.66 million to reflect the benefits of the Ft. Martin sales agreement, resulting in a net present value amount of $513.36 million at the OCA's discount rate. Id. at 10; OCA M.B. at 53-54.

While Duquesne disagrees with the OCA's proposal to deny a return on owned-generation assets during the CTC recovery period, Duquesne witness Clayton stated that "the

Company has no particular quarrel with [the OCA's] treatment." Duquesne St. 2R at 24. Thus, the OCA submits that its quantification of these costs is appropriate. OCA M.B. at 54.

(iii) DII's Position

In its direct case, Duquesne claims as a regulatory asset full recovery for the "premium on reacquired debt associated with Beaver Valley No. 2." Duquesne St. 4 at 10. Duquesne values the regulatory asset at $30.06 million. Duquesne St. 2-R, Exh. DJC-21 at 77. This regulatory asset claim is improper under the Act because recovery for these costs is included elsewhere in the DII restructuring filing. 66 Pa. C.S. §2803; DII M.B. at 55.

The claimed regulatory asset must be considered in two parts – pre-2005 and post-2005.

> [T]hrough 2005, the Company includes the unamortized BV2 sale/leaseback refinancing premium as a separately identified regulatory asset and also as an increase to stranded generation costs. After 2005, the Company includes the remaining BV2 sale/leaseback refinancing premium as a separately identified regulatory asset and also that amount in the BV2 lease payments regulatory asset. Thus, the Company has requested recovery of the same BV2 sale/leaseback refinancing premiums twice.

DII St. 3-S at 6. The sale/leaseback premium is included in the stranded generation cost claim because full lease expense and the premium is included through the year 2005 as Beaver Valley 2 "Non-Production Expense." Duquesne St. 3, Exh. DJC-21 at 17. Because the pre-2005 sale/leaseback refinancing premium is included as an increase to stranded-generation costs, it is not properly claimable as an additional separate regulatory asset under the Act; the refinancing premium is not a "net" electric generation related cost under the Act. See, 66 Pa. C.S. §2803; DII M.B. at 55-56

Post-2005, the Company requests recovery for the remaining Beaver Valley 2 sale/leaseback refinancing premium as a regulatory asset and recovery of a separate Beaver Valley 2 lease payments regulatory asset. Duquesne St. 2-R, Exh. DJC-21 at 77. The Company's calculation of the lease payments regulatory asset includes the refinancing premium. DII St. 3-S at 6. This obvious request for double recovery of the post-2005 refinancing premium must be rejected. 66 Pa. C.S. §2803; DII M.B. at 56.

The correct treatment of the refinancing premium is to include the full value of the Beaver Valley 2 lease expense for the years 1999 through 2005 in the quantification of generation stranded costs. DII St. 3 at 14. The post-2005 sale/leaseback refinancing premium costs should be recovered through the Beaver Valley 2 lease payments regulatory asset. Id. The DII proposal is equitable and eliminates double recovery for the refinancing premium. DII M.B. at 56.

Although Duquesne does not address DII's criticisms during the discussion of this regulatory asset in its rebuttal case, See, Duquesne St. 2-R at 24, it appears the Company is modifying its stranded cost claim to remove the double recovery. Specifically, Exh. DJC-10 notes that the present value of the Beaver Valley 2 lease expense including "premiums and unamortized debt costs" is included as "generating plant." Duquesne St. 2-R, Exh. DJC-10. The exhibit omits the originally claimed "PV Beaver Valley Lease" regulatory asset, which was valued by Duquesne at $227.78 million, and the "BV2 Sale/Leaseback Premium" regulatory asset, valued at $30.06 million. Id. & Exh. DJC-21 at 78; DII M.B. at 56-57.

The Duquesne exhibit also "adjusts" the DII claim to eliminate the $227.78 million Beaver Valley 2 lease expense regulatory asset that DII recommends Duquesne be

entitled to recover. Id. As previously explained regarding the treatment of the lease expense for calculation of net book value, DII continues to recommend that the lease expense for 1999-2005 be treated as part of stranded generating costs and the lease expense post-2006 be treated as a separately identified regulatory asset valued at $227.78 million. DII St. 3 at 14. Ironically, this results in DII recommending a higher level of total stranded regulatory asset recovery for Duquesne than the Company's claim as represented in its rebuttal case. DII M.B. at 57.

DII respectfully requests that its treatment of the Beaver Valley 2 sale/leaseback premium be adopted and that the Company's claimed Beaver Valley 2 sale/leaseback regulatory asset of $30.06 million be denied. Because recovery for the refinancing premium will be provided from elsewhere both pre-2005 and post-2005, Duquesne's claimed regulatory asset for the Beaver Valley 2 sale/leaseback premium is not a "net" stranded regulatory asset pursuant to the Act. Recovery should be denied. Id.; DII R.B. at 28.

(iv) <u>The PRA's Position</u>

The PRA suggests Duquesne's position on this issue is similar to the argument contained in (b) above. Duquesne St. No. 2-R at 24. Thus, Duquesne claims the present value of the post-2005 amounts must be recovered as a regulatory asset. Id. Duquesne currently recovers this amount as an operating expense. DII St. 3 at 13. The net present value of the Beaver Valley lease payments at December 31, 1998 included by the Company as a regulatory asset also appear to include the amortization of the Beaver Valley 2 lease refinancing premiums. Id. at 13. The effect of improper inclusion in both generation stranded cost quantification and

as a regulatory asset is an excessive quantification of stranded costs. This amount should only be included in the quantification of generation stranded costs. Id. at 14; PRA M.B. at 58.

(v) Recommendation

Since the Company and the OCA appear to be in agreement on this subject and finding substantial evidence supports it, I recommend the Commission adopt the claim of Duquesne for unamortized sale and leaseback premiums, as modified by the OCA's treatment.

(d) Deferred Rate Synchronization Costs

(i) Duquesne's Proposal

The Company claims deferred rate synchronization costs of $23.5 million. Duquesne M.B., Tables at 4. The deferred rate synchronization (or "early window") costs were described and supported by Mr. O'Brien, Duquesne St. 4 at 10-11 and Mr. Clayton, Duquesne St. 2-R at 25-26. The OCA and OTS support recovery of them, Duquesne St. 2-R at 25; the DII proposes that they be stated on a net present value basis, as approved in PECO Energy, Slip Op. at 74-75. The DII calculation of that number, however, is grossly incorrect. Duquesne St. 2-R at 25. The restated amount, Duquesne Exh. DJC-14 should be approved. Duquesne M.B. at 46.

(ii) DII's Position

DII notes in its direct case, Duquesne proposes to recover $33.43 million (at December 31, 1998) for "deferred rate synchronization costs" as a regulatory asset. Duquesne

St. 2-R, Exh. DJC-21 at 77 & 78 DII submits the Company's requested recovery as a regulatory asset of deferred rate synchronization costs is overstated and improper under the Act because it is not stated on a NPV basis. DII St. 3 at 23; DII M.B. at 57.

Deferred rate synchronization costs are early window costs associated with Perry and Beaver Valley 2 that the Company was permitted to amortize through 2006 as part of the Fort Martin settlement. Id. The Commission Order authorizing recovery of these deferred early window costs did not permit the Company to claim a return on the unamortized deferred rate synchronization costs. Id. In other words, in the regulated environment, a return would not be recoverable. See, 66 Pa. C.S. §2803. Consequently, the deferred rate synchronization regulatory asset in this proceeding must be quantified at the NPV of the future eight years of amortizations without a return on the costs. Id. This means that the amortization must be at the Company's after-tax discount rate, which results in a recovery of $24.87 million (as of December 31, 1998) instead of the Company's claim of $33.43 million. DII St. 3 at 23, Exh. LK-4; DII M.B. at 57-58.

With respect to DII's criticism of this regulatory asset quantification, Duquesne admits that it has mis-quantified the amount that should be included in the regulatory asset claim and decreases its claim by $0.5 million. Duquesne St. 2-R at 25. This adjustment, however, is based on a purported difference in the amortization period for these costs and avoids DII's contention that the regulatory asset NPV must be discounted to reflect the Commission's disallowance of return on the deferred amounts. DII St. 3-S at 23. The Company's stranded cost claim consequently remains overstated at the nominal value and must be restated to the

present value without a return in order to be properly quantified pursuant to the dictates of the Act. Id.; DII M.B. at 58.

Duquesne does not appropriately quantify its claim for the deferred rate synchronization cost regulatory asset. This claim must not include a return on the amortization because return was not authorized by the Commission in the Order permitting recovery. DII requests the Commission reject the Duquesne proposal and authorize Duquesne recovery for a regulatory asset associated with deferred rate synchronization costs of $24.870 million. Id.

In its reply brief, the DII finds that Duquesne revises it claim for deferred rate synchronization costs to $25.37 million. See, Duquesne M.B., Regulatory Asset Table. Duquesne's original claim was $33.43 million. See, Duquesne St. 2R, Exhibit DJC-10. DII recommends that the correct quantification, on a net present value basis, is $24.87 million. DII M.B. at 57-58. Based on the information submitted with Duquesne's Main Brief, DII believes the difference between the DII recommendation and the Duquesne revised request is based on using a different amortization period. Because the Company's revised calculation is closer to the DII recommendation, DII accepts the Company's regulatory asset claim as recalculated in its Main Brief. DII R.B. at 28.

(iii) HSS/ARI's Position

HSS/ARI argue Duquesne's claim for $41.5 million in deferred Rate synchronization costs also should be rejected. Duquesne cannot demonstrate that such costs have been approved by the Commission nor can Duquesne claim that it already is entitled to the recovery of those costs. See, PECO at 66. Duquesne petitioned the Commission to defer initial

operating and other costs of the Beaver Valley Unit and Perry Unit 1 from November 1987. Duquesne St. 4 at 10. Duquesne witness O'Brien cites the November 1987 Order in Docket No. R-00870222 for the claim that Duquesne was allowed to "seek recovery over time" of these costs. Id. However, that claim simply is not accurate. The November 1987 Order expressly declined to approve the recovery of these costs, declined to pass on the costs' prudence or whether the units at issue were used and useful, declined to adjudicate the justness and reasonableness of the expenditures and specified that "this Order is not to be construed as a determination by the Commission . . . that Duquesne . . . may recover any of the deferred costs . . . ." Exh. RBW-36. Thus, the November 1987 Order does not support Duquesne's claim to be entitled to recover these costs. HSS/ARI M.B. at 72.

Moreover, the Commission never has authorized Duquesne to recover these costs. HSS/ARI St. 1 at 95. and Exh. RBW-37. In fact, in the Ft. Martin proceedings, as a result of OCA objections to a Duquesne proposal, Duquesne amended its proposal specifically to recognize that the OCA had not agreed to the recovery of these costs in Duquesne's next base rate proceeding. Exh. RBW-38; HSS/ARI M.B. at 72-73.

Thus, the Commission has twice declined to permit Duquesne to recover these costs. HSS/ARI St. 1-SR at 18. Accordingly, Duquesne is not entitled to recover its deferred rate synchronization costs as a regulatory asset in this proceeding. HSS/ARI M.B. at 73.

(iv) <u>The PRA's Position</u>

The PRA notes Duquesne's claim for deferred rate synchronization costs or, "early window," costs are those incurred by it at Perry and Beaver Valley 2 between the time

the plants went into utility service and the time rates which reflected those plants were placed into effect upon Commission approval. Duquesne St. 2R at 25. Duquesne has quantified this amount as $33.43 million. DII St. 3 at 23. Under its proposal, Duquesne would amortize the unamortized balance by the end of the year 2005. Duquesne St. 2-R at 25. This amount should be valued at the net present value amount as of December 31, 1998 over the remaining amortization period and not the nominal amount at December 31, 1998. PRA M.B. at 58-59; PRA R.B. at 18.

(v) Recommendation

The record supports the Company's claim for deferred rate synchronization costs. Therefore, I recommend the Commission permit recovery of $23.5 million, on a net present value basis, for this claim.

(e) Deferred Employee Costs

(i) Duquesne's Proposal

Duquesne claims deferred employee costs of $13.830 million, on a net present value basis. *Duquesne M.B., Tables at 4.* Deferred employee costs were described and supported by Mr. O'Brien, Duquesne St. 4 at 11-12, and Mr. Clayton, Duquesne St. 2-R at 26-27. The OCA and OTS support recovery of them. Duquesne Exh. DJC-10. PECO Energy approved a similar regulatory asset. PECO Energy, Slip Op. at 74. DII opposes recovery of it, but the argument is meritless. Mr. Kollen contends that the costs simply represent "timing differences," yet all regulatory assets represent "the timing difference between accrual and cash

recognition of expenses." Duquesne St. 2-R at 26; See, also, DII St. 3 at 17. The asset should be allowed. Duquesne M.B. at 47.

(ii) DII's Position

DII finds the Company claims a regulatory asset for deferred employee costs valued at $17.800 million at December 31, 1998. Duquesne St. 2-R, Exh. DJC-21 at 77 and Exh. DJC-10. This claim encompasses deferred compensated absences and deferred injuries and damages. Neither component of the deferred employee cost claim is properly recoverable under the Act as a stranded regulatory asset. Moreover, recovery for deferred employee costs is provided elsewhere in the Company's stranded cost claim and recognition of the regulatory asset would lead to a double recovery in violation of the netting concept in the Act's definition of "stranded costs." 66 Pa. C.S. §2803; DII St. 3 at 17. Consequently, the Duquesne claim for regulatory assets must be denied. DII M.B. at 58-59.

The Company's claimed stranded regulatory asset for deferred employee costs is inappropriate and must be rejected. First, deferrals created by the accrual accounting being higher than the cash accounting for these regulatory assets will reverse in the future. DII St. 3 at 17. This means that at some point in the future, even if it is in the last year of the asset's life, a reversal should occur that will allow the Company to collect these costs on a cash basis that is higher than the accrual basis. DII St. 3-S at 16. The over-collection should be equal to the regulatory asset claim. Because the Company will be compensated for the regulatory assets at that time, recognition and recovery of a stranded regulatory asset in this proceeding is

inappropriate; the regulatory asset is not stranded by the movement to a deregulated environment. 66 Pa. C.S. §2803; DII M.B. at 59.

Second, the Company requests double recovery for these costs because the costs on an accrual basis have been inflated each year into the future and included as part of the Company's stranded generation cost quantification. DII St. 3 at 18; DII St. 3-S at 15.

> [T]he Company's generation stranded costs are predicted upon projections of expenses that are based upon the accrual levels of injuries and damages and compensated absences inflated each year into the future. Under the Company's generation stranded cost approach, it presumably will collect more each year for injuries and damages and compensated absences than it will pay out, which is reflected in a lower market value and higher generation stranded costs. The Company failed to provide a return benefit to ratepayers on the amounts collected in excess of cash payments in each of those future years. Thus, the Company's approach results in improper and excessive recovery through excessive generation stranded costs, an issue which DII has not otherwise addressed but which bears directly on the Company's request for these employee costs as a regulatory asset.

Id. The Company's rebuttal case fails to address, let alone rebut, the existence of this double recovery as both a regulatory asset and an addition to stranded generation costs. See, Duquesne St. 2-R at 26; DII M.B. at 59-60.

DII submits the Company has inappropriately claimed a regulatory asset of $17.8 million in deferred employee costs. The accounting treatment of these costs will reverse in the future. DII St. 3, at 17. Thus, the Company will fully recover the costs in the competitive environment and the deferred employee costs are not "stranded" by the transition to the competitive market. 66 Pa. C.S. §2803. In addition, the Company's stranded generation cost claim includes these costs. Recovery of deferred employee costs as a separate regulatory asset will violate the netting necessary under the definition of stranded costs. Id. For these reasons,

DII recommends that the Commission deny Duquesne's request to recover $17.8 million in deferred employee costs. The Company's claimed regulatory asset for deferred employee costs is inappropriate for reasons stated above and must be rejected. DII M.B. at 60.

DII contends the Company simplistically attributes DII's criticism of the regulatory asset claim to a "timing difference." Duquesne M.B. at 47. The DII criticism is more detailed. Recovery should not be allowed because the Company will be compensated for the full value of this regulatory asset at a later date when the accounting reversal switches. DII M.B. at 59. Consequently, the regulatory asset is not "stranded" as defined by the Competition Act, because the Company has not shown that the deferred employee costs will be unrecoverable in the competitive environment. 66 Pa. C.S. §2803. In addition, deferred employee costs on an accrual basis have been inflated each year into the future and included as part of the Company's stranded generation cost quantification. DII M.B. at 59-60. Because Duquesne will recover these costs as part of that stranded generation cost quantification, the regulatory asset is not a "net" electric cost and does not fulfill the statutory definition of a "stranded cost." 66 Pa. C.S. §2803; DII R.B. at 29.

The Company's assertion in its Main Brief that all regulatory assets simply represent timing differences between accrual and cash recognition of expenses is inapt and fails to refute DII's comprehensive explanation of why these costs are neither "stranded" nor "net" costs consistent with the definition of stranded costs in the Act. Duquesne M.B. at 47. The Duquesne revised claim for recovery as a stranded cost of $13.8 million in deferred employee costs must be rejected. DII R.B. at 29.

(iii) The PRA's Position

The PRA concurs with the assessment of the DII on this subject. PRA M.B. at 58; PRA R.B. at 18.

(iv) Recommendation

The Company's claim for deferred employee costs of $13.830 million, on a net present value basis, appears justified on this record. Therefore, I recommend the Commission permit Duquesne to recover this claim in the amount stated.

(f) Deferred Coal Costs

(i) Duquesne's Proposal

The Company claims deferred coal costs in the amount of $13.5 million, on a net present value basis. Duquesne M.B., Tables at 4. The deferred coal costs represent fuel costs that, in the past, exceeded "cost caps" in the Company's ECR and were deferred for recovery at a future date, when future fuel costs are below those caps. They are described and supported by Mr. O'Brien, Duquesne St. 4 at 13, and Mr. Clayton, Duquesne St. 2-R at 27-28. DII contends that the caps at issue are set at "market" levels and, by definition, the Company's fuel costs will never fall below market levels. DII St. 3-S at 17-18. This is not correct. As Mr. Clayton explained in rejoinder testimony, the caps are cost-based caps, N.T. 190-91 and, as Mr. Clayton had previously shown, Duquesne's fuel costs are expected to decline in 2000 to below these caps. Duquesne St. 2-R at 27-28; Duquesne Exh. DJC-3 at 3. The asset therefore should be allowed. Duquesne M.B. at 47.

(ii) The OCA's Position

Duquesne has included $13.5 million in deferred coal costs in its regulatory asset claim. Duquesne St. 4 at 13. This balance represents the amount that Duquesne paid for coal from the Warwick and Mansfield mines in excess of the amount that it was permitted to roll-in through its ECR under the terms of the settlement reached by the parties and approved by the Commission in Docket Nos. P-00880386 and P-00890387. Petition of Duquesne Light Company for Order Establishing a New Coal Cost Standard, Docket Nos. P-00890386 and P-00890387, Slip Op. (June 15, 1990). Duquesne witness O'Brien argues that the settlement provided for recovery of these deferred coal costs at some future time. Duquesne St. 4 at 13; OCA M.B. at 54.

OCA witness Catlin has recommended that Duquesne's entire deferred cost claim be denied. Mr. Catlin explains his reasoning as such:

> The settlement in those dockets allowed the Company to defer costs in excess of a market based price cap for future recovery at such time as its costs were less than the capped price. . . . To the extent actual costs did not fall below the market based price cap, the settlement did not provide any other mechanism for the recovery of the deferred costs. In other words, the settlement did not provide assured recovery of any costs which Duquesne was required to defer because the price paid for coal exceeded the price cap.

OCA St. 3 at 13-14. As such, the OCA submits that these coal costs are not eligible for recovery in this case. OCA M.B. at 54; OCA R.B. at 15.

(iii) **DII's Position**

The Company claims recovery as a regulatory asset for $13.5 million in deferred coal costs. Duquesne St. 2-R, Exh. DJC-10. This claim arises from a 1990 settlement at Docket Nos. P-00890386 and P-00890387. Duquesne St. 4 at 13. In that settlement, the PUC imposed a cap on fuel costs the Company could recover through the Energy Cost Rate because some of the claimed coal costs were above market price. DII St. 3 at 18-19. As part of that settlement, Duquesne was granted the opportunity to recover the deferred amounts in the future, if the Company could show that the Company's coal costs in future years are below market value. Id. at 19; DII M.B. at 60.

Recovery by Duquesne for deferred coal costs as a stranded regulatory asset is inappropriate. First, pursuant to the Act, it is inappropriate to allow stranded cost recovery for costs deemed in the past to be excessive and non-recoverable. 66 Pa. C.S. §2803; DII St. 3 at 19. "Any amounts previously disallowed by the Commission as imprudently incurred" are specifically excluded from the definition of "stranded or transition costs." 66 Pa. C.S. §2803. To allow the Company to recover deferred coal costs as a regulatory asset would, in effect, reinsert these coal costs into the rates being charged to Duquesne's customers. Because these amounts were previously disallowed, recovery of this regulatory asset would circumvent the generation rate cap as set forth in Section 2804. 66 Pa. C.S. §2804(4); DII M.B. at 60-61.

Second, the Company has not demonstrated that the specific coal costs would be typically recoverable in a regulated environment. See, 66 Pa. C.S. §2803. As part of the 1990 settlement, the Company was permitted future recovery of the deferred coal costs if it could show that its coal costs were below market in future years. DII St. 3 at 18-19. Thus, under

the traditional regulatory environment, in order to include the deferred coal costs and rates, Duquesne would have to produce evidence that its future coal costs are or will be below market. Id. The Company has produced no such evidence that its future coal costs will be below market. Id. at 20. The fact that the coal costs contained in its filing will decline in 2000 is irrelevant because the Company has not demonstrated that the declining coal costs will be below market. DII St. 3-S at 18. Under the traditional regulatory environment, the coal costs would be recoverable only if the Company met the conditions of the settlement. The Act, in no uncertain terms, does not override this recovery requirement. DII M.B. at 61.

The Company's claim for regulatory asset representing deferred coal costs is inappropriate under the Act because these amounts were previously disallowed as being uneconomic and because the amounts would not be typically recoverable in the regulated environment based on the evidentiary record created by Duquesne in this proceeding. Consequently, DII submits that recovery for the deferred coal costs regulatory asset must be denied. Id.; DII R.B. at 29-30.

(iv) HSS/ARI's Position

HSS/ARI assert this claim is not supported by Commission authority and must be denied. As the Commission held with respect to deferred fuel costs in PECO, "undetermined future [fuel] expenses cannot qualify as recoverable stranded costs under the [Customer Choice] Act." PECO at 71. Duquesne's justification for recovery of deferred coal costs are based on the projection that "fuel costs are expected to decline in the year 2000 . . . ." Duquesne St. 2-R at 28. However, Duquesne's opportunity to recover deferred coal costs is predicated on the

realization of certain contingencies. HSS/ARI St. 1 at 96-97. In fact, Duquesne testifies as to the speculative nature of projections of future energy costs. Duquesne St. 3 at 8-9. Accordingly, Duquesne cannot determine its future deferred coal costs on a net known and measurable basis. Duquesne's attempt to recover such costs therefore must be rejected. HSS/ARI M.B. at 73.

Apart from this restructuring proceeding, Duquesne has recognized that its opportunity to recover the deferred costs is permissible only if "the delivered costs of coal fall below such PUC-determined prevailing market prices." Exh. RBW-39. Accordingly, Duquesne had no assurance that its aggregate coal costs would be sufficiently low as to permit collection of the deferred amounts apart from this restructuring proceeding. Consequently, recovery of deferred coal costs was highly contingent long before this restructuring proceeding. Accordingly, Duquesne cannot now claim that these costs are "determinable." Therefore, Duquesne is not entitled to recovery of deferred coal costs as a regulatory asset. HSS/ARI M.B. at 73-74.

(v) <u>The PRA's Position</u>

The PRA argues this amount represents costs which historically have been above market costs that limited the amounts that could be included in Duquesne's annual ECR. Duquesne St. 2-R at 27. These costs should be rejected because it requires an allowance for recovery of costs that were deemed to be in the past excessive and nonrecoverable in currently effective rates. DII St. 3 at 19. The Act has not changed this fact as it merely permits costs recoverable under "traditional ratemaking" authority. Further there is no evidence that

Duquesne will have below market costs in the future, a necessary predicate for recovery of these above-market costs. Id. This claim should be rejected by the Commission. PRA M.B. at 59-60; PRA R.B. at 18.

(vi) Recommendation

Duquesne has failed to show that these coal costs would be typically recoverable in a regulated environment. 66 Pa. C.S. §2803. Therefore, I recommend the Commission disallow the Company's claim for deferred coal costs of $13.5 million in its entirety.

(g) Deferred Caretaker Costs

(i) Duquesne's Proposal

The Company claims deferred caretaker costs of $3.92 million, on a net present value basis. Duquesne M.B., Tables at 4. Duquesne explains the deferred caretaker costs are the costs incurred in maintaining Brunot Island and Phillips plants in cold storage in the expectation that, in the future, they would become economic. See, supra Section IV.B.2(c). The assets are described and supported by Mr. O'Brien, Duquesne St. 4 at 14-15, and Mr. Clayton, Duquesne St. 2-R at 32-35. The OCA argues that they cannot be recovered because the units have not been returned to service. OCA St. 3 at 14-15. But this is circular reasoning. The units have not been returned to service precisely because they are uneconomic - i.e., stranded. The asset should be approved for all the same reasons discussed previously regarding these units. Duquesne St. 2-R at 32-35. Duquesne notes the OCA opposes recovery of these

costs, although it did not oppose recovery of the stranded investment associated with the Phillips and BI units. See, OCA St. 3 at 14-15; DII St. 3 at 20-21; Duquesne M.B. at 48.

(ii) The OTS' Position

In its claim for regulatory assets, Duquesne has included a claim for deferred caretaker costs associated with the cold reserved units (Phillips and Brunot Island units 3 and 4). Duquesne St. 4 at 14. While the total stranded cost claim is apparently $6.72 million, the claim, net of taxes, is $3.92 million. See, OTS St. 4 at 21; Appendix, Table 4; OTS M.B. at 45.

OTS engineer Paul Metro presented the OTS position in opposition to this claim. The Company's apparent basis for the claim is that the Commission provided for recovery of these costs in its approval of a Duquesne Petition at Docket No. P-00900485, when the Phillips cold reserved units returned to commercial operation. See, Affiliated Interest Agreement Between Metropolitan Edison Company, Pennsylvania Electric Company and Jersey Central Power and Light Company; Petition of Duquesne Light Company for Declaratory Order; Petition of Metropolitan Edison Company and Pennsylvania Electric Company for Declaratory Order, 76 Pa. P.U.C. 281, 308, 332 (1992); OTS M.B. at 45-46.

However, the Phillips Power Station never returned to commercial operation. As stated by Mr. Metro, since these plants will not be used to meet the future needs of Duquesne's regulated customers, there is no benefit to ratepayers associated with the preservation costs and Duquesne should not be permitted to recover these preservation costs from customers. OTS St. 4 at 23; OTS M.B. at 46.

Mr. Metro's position is consistent with the Competition Act, which only provides for recovery of regulatory assets that are "typically recoverable under current regulatory practice." 66 Pa. C.S. §2803. These deferred caretaker costs are not typically recoverable. As stated by the Pennsylvania Supreme Court in Barasch v. Pa. P.U.C., supra, 532 A.2d at 337, "the only expenses which a public utility in this state may recover from ratepayers, through rates, are those expenses which represent the actual costs of providing present public utility service." OTS M.B. at 46.

These deferred caretaker costs are preservation costs related to the cold reserved units which are not providing present public utility service. Also, as stated previously, the fact that the cold reserved units are no longer used and useful is not due to the transition to retail competition. Duquesne has clearly failed to meet its burden of proof that these costs are recoverable under the Competition Act, and its claim should therefore be denied. Id. at 46-47.

(iii) The OCA's Position

Duquesne has claimed $6,770,00 to be recovered as a regulatory asset for the costs associated with the maintenance of the Phillips and Brunot Island units during their time in cold reserve. Duquesne St. 4 at 7, 14. Duquesne has stated that the Commission approved recovery of these costs in Docket P-00900485. Duq. St. 4 at 14. See, Petition of Duquesne Light Co. for Declaratory Order, P-00900485, Slip Op. (April 2, 1992).[105] OCA M.B. at 55.

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[105] At the time of Docket No. P-00900485, it was anticipated that these units would be returned to service in conjunction with a proposed power sale between Duquesne and the GPU companies. Recovery of the investment in the Phillips and Brunot Island units, including deferred caretaker costs, was to take place through the power sales clause to be implemented in (continued...)

The OCA submits, however, that Duquesne is incorrect. No assurance of recovery of these costs was provided by the Commission. Mr. Catlin explains:

> That settlement allowed Duquesne to defer the costs for preserving the Phillips and Brunot Island units while they were in cold reserve until those units were reactivated. The settlement provided that recovery of the deferred caretaker costs was only to take place at the time the units were returned to service. No provision or assurance was made for recovery of the deferred costs if the units were not returned to service.

OCA St. 3 at 15; OCA M.B. at 55.

In this proceeding, Duquesne has not proposed to return the Phillips and Brunot Island units to service. Duquesne St. 4 at 14-15. Therefore, Duquesne is not entitled to recover deferred caretaker costs as a regulatory asset. If the units are later returned to service, OCA witness Catlin explains, "it will be because the revenues produced will exceed Duquesne's ongoing costs. If this occurs, then Duquesne will recover its deferred costs from the margins generated." OCA St. 3 at 15. The OCA submits that there is no basis for the recovery of deferred caretaker costs and the $6,770,000 should be removed from Duquesne's regulatory asset claim. Consistent with the OCA's treatment of deferred coal costs, the Company has not shown that its condition for recovery - that Phillips and Brunot Island will be returned to service - is expected to occur. Consistent with this view, the Company has not recognized any market revenues from these units to help recover the undepreciated book investment. OCA St. 3 at 15. For the reasons set forth above, the OCA submits that this claim should be denied. OCA M.B. at 55-56; OCA R.B. at 15-16.

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[105](...continued)
conjunction with the sales. The transaction with GPU was never completed. OCA St. 3 at 15.

(iv) **DII's Position**

Duquesne claims recovery for a $3.92 million regulatory asset for deferred caretaker costs. Duquesne St. 2-R, Exh. DJC-10. On a pre-tax basis, the claim is $6.77 million. Id. Exh. DJC-15 at 4. These costs do not meet the standards for recovery of stranded costs pursuant to the Act. 66 Pa. C.S. §2803; DII St. 3 at 20. Consequently, DII's proposed recovery for the regulatory asset claim must be denied. DII M.B. at 61-62.

The deferred caretaker cost regulatory asset reflects the accounting treatment authorized by the Commission at Docket No. P-00900485 for preservation costs associated with maintaining the Philips and Brunot Island generating plants. Duquesne St. 4 at 14. Duquesne has repeatedly stated that it has no intention to return these units to commercial operations. Duquesne St. 2-R at 32-35; DII M.B. at 62.

Because these units will not be returned to commercial operation, recovery of the regulatory asset is inappropriate under the standards set forth in the Act. Regulatory assets are recoverable under the Act only if they would be typically recoverable in the regulated environment. 66 Pa. C.S. §2803. Duquesne was not guaranteed recovery of these costs; Duquesne was guaranteed only a right to seek recovery, if and only if, it met standards for recovery under the settlement, which requires return of the unites to commercial operation. This it cannot do. DII St. 3 at 20; DII M.B. at 62.

Duquesne's explanation of its efforts to return the units to commercial service is irrelevant. Duquesne St. 2-R at 32-33. Duquesne has not met the threshold requirements of returning the units to commercial service, in order for the costs to be recoverable in the traditional regulatory environment or under the Act. 66 Pa. C.S. §2803. Moreover, the

Company has made no showing that if the units were returned to service, those units would not recover the deferred caretaker costs through commercial operation in the competitive environment. DII St. 3 at 21. In other words, the Company has failed to satisfy the burden of proving that these costs have been "stranded" by the transition to a competitive environment. 66 Pa. C.S. §2803. Consequently, DII submits that Duquesne's recovery of these costs, as a regulatory asset must, be denied. DII M.B. at 62; DII R.B. at 30.

(v) HSS/ARI's Position

Duquesne attempts to recover approximately $6.77 million in costs associated with the "care and feeding" of the Phillips and Brunot Island facilities, as well as the underlying capital investments - which it claims to be $106.8 million. Duquesne St. 4 at 15. The Phillips and Brunot Island Units are not, however, entitled to be recovered as stranded regulatory assets. HSSARI M.B. at 74.

As was previously discussed, these facilities were shutdown and taken out of service ten years prior to this restructuring proceeding. Had these units been retired in 1986, ratepayers would not have to be burdened with caretaker costs incurred to preserve Duquesne's business options. HSS/ARI St. 1-S at 22. Thus, ratepayers should not have to bear the burden of Duquesne's poor management decisions. Id. These facilities have been excluded from Duquesne's rate base since 1986. Accordingly, these caretaker costs are not related to the industry restructuring. Therefore, these costs should be removed from Duquesne's stranded cost claim. HSS/ARI M.B. at 74.

(vi) **The PRA's Position**

This claim refers to the cost of maintaining Duquesne's cold reserved generating units approved for deferral in Docket No. P-00900485. Duquesne St. 2-R at 33. These costs should be rejected because recovery would have been permitted only if the plants had been returned to service; there was never a guarantee of cost recovery. DII St. 3 at 20. Further, there is no evidence that such units will return to service. Indeed, as Duquesne has stated, the "For Sale" sign has been out on the plants for several years with no purchasers in sight. Duquesne St. 2-R at 33. Thus, this claim should be disallowed. PRA M.B. at 60; PRA R.B. at 19.

(vii) **Recommendation**

Nothing in this record appears to support a determination that the assets associated with these caretaker costs, i.e., the Brunot Island and Phillips plants, will be returned to service within the foreseeable future. Accordingly, the assets to which these claimed costs relate are not "used and useful" within the meaning of traditional ratemaking. Therefore, the Commission should deny Duquesne's claim for deferred caretaker costs of $3.92 million, on a net present value basis, in its entirety.

(h) **Pre-Accrual of Nuclear Outages**

(i) **Duquesne's Proposal**

The Company claims a charge of $10.29 million, on a net present value basis, for pre-accrual of nuclear outages. Duquesne M.B., Tables at 4. The pre-accrual of nuclear outage

costs was described and supported by Mr. O'Brien, Duquesne St. 4 at 12, and Mr. Clayton, Duquesne St. 2-R at 29-30. This regulatory asset arises from a change in accounting that was specifically approved by Duquesne's outside auditors and the FERC audit staff. Duquesne St. 2-R at 29. The OCA opposes the change because it fears that it will result in a double counting of costs. OCA St. 3 at 11. This is not correct because the item has not been included in the future operating expenses projected in this case. Duquesne St. 2-R at 29. Thus, if the claim was disallowed, "the Company should increase its operating expenses in the years that outages actually occur." Id. This regulatory asset should be approved. Duquesne M.B. at 48-49.

(ii) The OCA's Position

Historically, Duquesne has accounted for, and been allowed to recover, nuclear maintenance outage costs by deferring those costs when incurred and amortizing them over the interval between outages. In this filing, Duquesne has proposed to revise that treatment by accruing the costs prior to the outage taking place and has included the pre-accrual of these costs as a regulatory asset to be recovered through the CTC. Duquesne St. 4 at 12; OCA M.B. at 56.

OCA witness Catlin evaluated this claim and has excluded these costs from his regulatory assets analysis, as they are included in OCA witness Kahal's cash flow analysis for Duquesne's nuclear plants. OCA witness Catlin explains:

> In determining the stranded costs associated with Duquesne's company-owned generating units, my associate, Mr. Kahal, has relied on the cash flow analysis provided by Duquesne which compares projected market revenues to generating unit operating costs. The projected operating costs for the Company's nuclear units include the full cost of the maintenance outages in the years

> the costs are projected to be incurred. Therefore, there is no basis for including a regulatory asset for the pre-accrual of those same costs under the OCA methodology. To do so would result in double-counting of the costs for which the pre-accrual is made.

OCA St. 3 at 11; OCA M.B. at 56.

In rebuttal testimony, Duquesne witness Clayton excepted to the OCA's treatment of pre-accrued nuclear outage costs saying that it would deny Duquesne recovery of its projected nuclear outage costs. Duquesne St. 2R at 29. On this point, Mr. Clayton is simply incorrect. OCA witness Catlin restated in surrebuttal that these outage costs are already included in the OCA's stranded cost analysis and, thus, would not deny the Company any recovery. OCA St. 3S at 2. Thus, the OCA's method should be adopted. OCA M.B. at 56; OCA R.B. at 16.

(iii) DII's Position

Duquesne claims, as a regulatory asset, $13.50 million in "Pre-Accrued Nuclear Outages" resulting from a unilateral accounting change for nuclear outage costs. Duquesne St. 2-R, Exh. DJC-10; Duquesne St. 2-R at 29. On a pre-tax basis, the Company's claim is $22.65 million. Duquesne St. 2-R. Recognition of this regulatory asset in the Duquesne stranded cost calculation is inappropriate because the pre-accrual will reverse in the last year of the life of the assets. DII St. 3 at 16. In the last year, the pre-accrual is reversed, but no additional deferrals are made. DII St. 3-S at 12. In short, the Company will be made whole for the deferral in the last year of the asset life; as such, no "stranded" cost is created by the transition to the competitive market. Id. at 13. The claimed regulatory asset is not stranded because Duquesne will recover the deferral amount regardless of the transition to the competitive market.

Consequently, pre-accrued nuclear outage costs are not properly recoverable as a stranded cost pursuant to Chapter 28. DII M.B. at 63.

Because this simply represents accounting changes (i.e., no actual money changes hands), no carrying charge associated with the change exists. Id. at 12. The difference is solely a timing difference and not a permanent difference as the Company has treated it by requesting recovery of the "stranded" regulatory asset. Id. No part of the deferral is made unrecoverable because of the transition to a competitive market; consequently, the deferral is not "stranded" pursuant to the definition in Chapter 28. 66 Pa. C.S. §2803; DII M.B. at 63.

The Company inappropriately requests recovery for a regulatory asset related to its change in the accounting treatment of costs associated with nuclear outages. As DII illustrates, these costs are not "stranded" pursuant to the Act because the accounting deferral will reverse in the final year of the nuclear unit's life. DII respectfully requests that the Commission deny recovery by Duquesne for its claim of $22.65 million in "Pre-Accrued Nuclear Costs." Id.; DII R.B. at 30-31.

(iv) The PRA's Position

The PRA supports the DII on this issue. PRA M.B. at 60-61; PRA R.B. at 19.

(v) Recommendation

The transition to a competitive market justifies a change in accounting methods for this asset. Accordingly, I recommend that the Commission allow the Company to claim as

a regulatory asset pre-accrual of nuclear outages in the amount of $10.29 million, on a net present value basis.

(i) **Transition Costs**

(i) **Duquesne's Proposal**

The Company claims transition costs of $10.59 million, on a net present value basis. Duquesne M.B., Tables at 4. The transition costs, which relate to the expense of this restructuring proceeding and pilot program deferrals, were described and supported by Mr. Clayton, Duquesne St. 2-R at 30.[106] The OCA and OTS do not oppose their recovery. Duquesne Exh. DJC-10. PECO Energy permitted recovery of similar costs. PECO Energy, Slip Op. at 93. DII and HSS, however, oppose part and all, respectively, of these costs, but they do not contest any particular expenditures as unjust or unreasonable. The costs should be approved because they were required to be expended to implement the Act. Duquesne St. 2-R at 30. Indeed, the pilot program deferrals were specifically authorized by the Commission in its August 29, 1997 Pilot Program Order. Opinion and Order on Pilot Program Implementation, Docket No. P-00971175 (August 29, 1997). Duquesne M.B. at 49.

(ii) **DII's Position**

The Company requests recovery of $10.59 million in transition costs as part of its stranded cost claim. Duquesne St. 2-R, Exhibit DJC-10. On a pre-tax basis, the Company's

[106] This claim includes the expenses associated with the pilot program and customer education.

claim is $18.1 million. Id. Exh. DJC-15 at 11. Although transition costs are properly recoverable under the Act, certain aspects of the Company's claim are invalid and directly conflict with other parts of its filing. DII M.B. at 64.

Specifically, the Company's request for recovery, as a transition expense, for the CARS information processing and communications network system should be denied. Such costs should not be considered transition costs under the Act because Duquesne anticipated installing the CARS system prior to passage of the Act. Duquesne St. 8 at 5. In fact, in January 1996, 11 months prior to passage of Act 138, Duquesne entered into a 15-year agreement for the implementation and operation of the CARS system. DII St. 3 at 24. The system was already contemplated prior to the advent of competition and was not necessitated by the Commonwealth's introduction of competition in electricity generation supply. Consequently, such costs should not be recovered as transition costs under the Act. The necessary adjustment to transition costs remove CARS cost is $8.3 million, resulting in proposed recovery of $9.8 million for transition costs. Id. at 6 & 24; DII M.B. at 64.

Duquesne's treatment of the CARS system costs is also inconsistent in its filing. Duquesne claims that CARS implementation will not result in higher ratepayer costs because the "cost of the service agreement for each year and over the 15 year term were offset by cost reductions associated with base operations, customer choice, and proved reliability and enhanced based services." Duquesne St. 8 at 7-8. The Company also states it incurred no capital costs associated with the system. Id. at 7. If the Company incurred no capital costs, and costs associated with the service agreement will be offset by other savings, then the Company incurs no net costs associated with the system. It is inequitable and inconsistent with the Act to

compensate the Company for "stranded" costs that in reality will be offset by other savings. 66 Pa. C.S. §2803; DII St. 3 at 25; DII M.B. at 64.

In response to DII's criticisms, the Company claims that the CARS expenses are not included in the transition cost claim. Duquesne St. 2-R at 30. Instead, the Company claims that the costs have been included as a distribution operating cost. The Company provides no support for this claim. In the event that cost recovery is included as a distribution operating cost, as opposed to a transition cost, these costs are still treated inconsistently in the filing and recovery should be denied. The Company cannot support implementation of the CARS system by stating that it imposes no cost on ratepayers and simultaneously claim costs associated with the system should be recovered from ratepayers either as a regulatory asset or as a distribution cost. DII M.B. at 65.

The Company's claim for transition costs is overstated because it includes costs associated with the CARS communications network. This system is not properly categorized as a "transition" cost because it was contracted for prior to the advent of competition. In addition, Duquesne incurs no net costs associated with the CARS system. Consequently, DII submits no recovery of CARS costs is permissible. DII respectfully requests that $8.3 million in CARS related expense be removed from Duquesne's proposed transition cost claim. Id.; DII R.B. at 31.

(iii) Recommendation

No definitive support exists in this record for the DII's assertion that Duquesne's claim for transition costs includes $8.3 million in CARS related expense. Accordingly, I

recommend the Commission allow the Company to claim the full amount of its transition expenses in the amount of $10.59 million, on a net present value basis.

(j) SFAS 106 Deferred Costs

(i) Duquesne's Proposal

The Company claims $1.92 million, on a net present value basis, for SFAS 106 deferred costs. Duquesne M.B., Tables at 4. The SFAS 106 costs were described and supported by Mr. O'Brien, Duquesne St. 4 at 13, and Mr. Clayton, Duquesne St. 2-R at 31. The OTS and OCA do not oppose their recovery. Duquesne Exh. DJC-10. PECO Energy approved recovery of a similar regulatory asset. PECO Energy, Slip Op. at 72-73.[107] DII and HSS, however, oppose recovery of them. As indicated by Mr. Clayton, however, it appears these parties misunderstand the nature of these expenses, which the Company was required by GAAP to record. Duquesne St. 2-R at 31. The costs should be approved. Duquesne M.B. at 49-50.

(ii) DII's Position

The Company proposes recovery for SFAS 106 costs related to post-retirement benefits such as health care and life insurance. Duquesne St. 4 at 13. Duquesne quantifies this regulatory asset at $2.47 million. Duquesne St. 2-R, Exh. DJC-10. Because of the passage of

[107] The portion of the SFAS 106 disapproved in that case related to costs associated with an early retirement program, PECO Energy, Slip Op. at 73, but no such issue is presented in this case.

the Act, Duquesne proposes to accelerate amortization of these costs over the seven-year transition period instead of the originally proposed 20-year period. Id. at 14; DII M.B. at 65.

The Company's proposed recovery of this regulatory asset is clearly inappropriate and must be rejected. Because these costs are included on the Company's financial books on an accrual basis, instead of a cash pay-as-you-go basis, the Company currently over-collects SFAS 106 costs. This over-collection will continue into the foreseeable future. DII St. 3 at 21. This over-recovery earns a return (either the Company's overall return, or, the rate of return for an external trust fund) for which only the Company benefits. Id. Ratepayers receive no advantage of this accounting recognition, because at the point that cash outlays for post-retirement benefits exceed the accrual amount as reflected on the Company's books, the unit will no longer be in regulated service. Id. at 21-22. It is, thus, inappropriate for the Company to claim a short-term "stranded cost" for this regulatory asset when, in reality, only the Company will realize the long-term advantage of the accounting treatment of post-retirement benefits. 66 Pa. C.S. §2803; DII St. 3-5 at 21. Alternatively, if the Commission grants recovery for this regulatory asset, a corresponding regulatory liability must be created to return to ratepayers a rightful portion of the long-term benefit created by past over-payments of SFAS 106 costs. Id.; DII M.B. at 65-66.

In addition, the Company's SFAS 106 regulatory asset claim is inappropriate under the Act because such costs are already being recovered elsewhere in the Duquesne stranded cost claim. Thus, the cost is not a "net" cost. 66 Pa. C.S. §2803. Any excessive levels of ratepayer recovery necessitated under the accrual method of accounting are embedded in Duquesne's stranded generation cost claim. DII St. 3 at 21. Consequently, recovery of such

costs as a separate regulatory asset amounts to an excessive double recovery for the Company. DII M.B. at 66.

Furthermore, SFAS 106 costs do not meet the definition under the Act of a stranded cost. Pursuant to the Act, a stranded cost must be a cost that was typically recoverable in the regulated environment, but will not be recoverable in the competitive environment. 66 Pa. C.S. §2803. All companies in the competitive generation environment will be subject to the provisions of SFAS 106. If all competitors are subject to these costs, the pricing in the competitive environment will necessarily ensure recovery of the costs; Duquesne's competitive position should not be enhanced by providing the Company for recovery of a cost that equally effects Duquesne and alternative suppliers. DII M.B. at 66.

The Company's claimed regulatory asset for SFAS 106 costs lacks a factual and statutory basis. The cost is not "stranded" because all suppliers in the competitive environment will be subject to SFAS 106. The cost is not a "net" cost because it does not account for earnings on the excess payments until the accounting treatment reverses. In addition, the cost is not "net" because it is also included in Duquesne's stranded generation cost claim. Because of these pervasive deficiencies, DII submits that the Duquesne claim for $4.22 million in SFAS 106 costs be rejected. In the alternative, if the regulatory asset were approved for recovery by the Commission, DII requests a corresponding regulatory liability, to compensate ratepayers for the return earned by the Company on the years of pre-payment of these costs be recognized. DII recommends that the Commission deny recovery for this purported regulatory asset. Id. at 67; DII R.B. 31-32.

(iii) **HSS/ARI's Position**

Duquesne claims that it is entitled to recover $22.43 million in FAS No. 106 costs as a stranded regulatory asset. Duquesne St. 4 at 7. The FAS No. 106 costs, which Duquesne began accruing in 1993, Id. at 13-14, relate to certain health care benefits and life insurance for some of the Company's retired employees. Id. at 13. Duquesne's requested recovery of these costs must be rejected for several reasons. First, in its direct case Duquesne offered no support for Commission approval of the costs. Duquesne St. 4 at 7. Moreover, Duquesne essentially concedes that FAS No. 106 costs are not a regulatory asset. Duquesne Statement 2-R at 31. Nonetheless, Duquesne asserts that it is justified in recovering FAS 106 costs because these costs are a "GAAP" liability which currently exists. Duquesne St. 2-R at 31. However, under that standard, any liability would qualify for recovery. HSS/ARI St. 15 at 27. Accordingly, Duquesne should be proscribed from recovering its FAS 106 costs as a regulatory asset. HSS/ARI M.B. at 74-75.

(iv) **The PRA's Position**

The PRA concurs with the DII on this issue. PRA M.B. at 62; PRA R.B. at 20.

(v) **Recommendation**

Since it appears SFAS 106 is not a regulatory asset because all suppliers in the competitive environment will be subject to SFAS 106, the Commission should deny Duquesne the entire amount of its claim of $1.92 million, on a net present value basis.

(k) Warwick Mine Costs

(i) Duquesne's Position

Duquesne explains the Warwick mine costs are described and supported by Mr. Clayton. Duquesne St. 2-R at 31-32. No party other than HSS opposes their recovery and it does so, again, applying the wrong standard. The costs have been included in plant, not regulatory assets. Duquesne Exh. DJC-10; Duquesne M.B. at 50.

(ii) HSS/ARI's Position

HSS/ARI note Duquesne seeks to recover over $15 million in claimed stranded costs associated with the Warwick Mine. Duquesne St. 4 at 7. The claimed $15 million represents the net book value of Duquesne's investment in the mine. In 1996, the operator of Warwick Mine informed Duquesne that it was ceasing to operate the mine. Exh. RBW-39. Duquesne therefore is seeking direct recovery of its capital investment in the mine from its ratepayers. Id. at 98. This attempt is wholly unjustified. HSS/ARI M.B. at 75.

On February 21, 1981, the Commission required Duquesne to remove Warwick Mine from the Company's rate base. Exh. RBW-40. In the event that the Warwick Mine was efficient enough to produce coal at a cost below the average price of comparable coal, Duquesne would have been permitted to earn a reasonable return on its investment. Id. In addition, after 1981, Duquesne was permitted to recover its investment in Warwick Mine through the cost of coal subject to the coal cost cap in the ECR.[108] Nonetheless, Duquesne acknowledged in 1995

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[108] This also applied to deferred coal costs. HSS/ARI St. 1-S at 21. See, Section IV. E. 2(f), above.

that the Warwick Mine had been excluded from the rate base since 1981. Exh. RBW-41; HSS/ARI M.B. at 75-76.

For the same reason applicable to deferred coal costs, Warwick Mine capital investment does not qualify as a regulatory asset - recovery of costs was not assured, but could occur only when costs fell within the ECR charge. As PECO holds, only determinable costs already approved by the Commission are to be afforded regulatory asset status. Duquesne's attempt to justify inclusion of Warwick Mine in its stranded cost claim, thus, must fail because these costs are not determinable nor justified by Commission approval. Because there has been no production from the mine well before this restructuring proceeding, Duquesne is not entitled to collect any cost of, much less its capital investment associated with, the mine under the coal cost cap. HSS/ARI M.B. at 76.

(iii) Recommendation

Since the Warwick Mine costs are not currently in rate base, it appears these costs are not "stranded" by the transition to a competitive generation market. Therefore, the Commission should grant the adjustment and deny this claim in its entirety.

(l) Compensated Absences

(i) Duquesne's Position

Duquesne notes these expenses are discussed, supra, under "Deferred Employee Costs." Duquesne M.B. at 50.

(ii) HSS/ARI's Position

Duquesne seeks to include approximately $8 million in costs associated with compensated absences as regulatory assets. However, Duquesne has not adequately justified these costs. Duquesne has eliminated hundreds of employees over the last decade and likely could eliminate a significant number more in the future as a result of competition, the proposed merger with APS or both. HSS/ARI St. 1 at 113. Given that no scenario suggests that Duquesne's employee headcount will remain constant much less increase, at a minimum, Duquesne has failed to demonstrate that its compensated absence accruals will not result in a windfall as the company reduces its headcount. Moreover, Duquesne has not provided any evidence to support the actual proportion of these costs that is directly related to generation; nor has Duquesne even rebutted criticisms of its claim for regulatory asset status of compensated absences. HSS/ARI St. 1-S at 17-18. Therefore, the Company has failed to make any showing that it is entitled to include $8 million in compensated absences in its stranded cost claim. HSS/ARI M.B. at 76-77.

(iii) Recommendation

For the reasons stated, supra, recommending approval of deferred employee costs, I urge the Commission to reject the proposed adjustment of the HSS/ARI.

(m) **Injuries/Damages**

(i) **Duquesne's Position**

Duquesne notes these expenses are discussed, supra, under "Deferred Employee Costs." Duquesne M.B. at 50.

(ii) **HSS/ARI's Position**

Duquesne seeks to recover over $9 million in costs associated with Injuries and Damages as generation-related regulatory assets. Duquesne St. 4 at 7. Duquesne Witness O'Brien claims that "[t]hese costs relate to the Company's workers (sic) compensation liability." Duquesne St. 4 at 11. Duquesne claims that this regulatory asset results from a difference in timing between when the liability is booked and when amounts are actually recovered through its rates. Id. However, Duquesne has not established the justness and reasonableness of these claimed amounts since its last rate case in 1987 (Docket No. R-00870651). Id. at 11. Moreover, Duquesne witness O'Brien apparently concedes that only generation-related amounts are recoverable. Id. at 11. Duquesne has not demonstrated that any of the expenses claimed are generation-related. Accordingly, it is not entitled to recover such expenses in its CTC. HSS/ARI M.B. at 77.

(iii) **Recommendation**

For the reasons stated, supra, recommending approval of deferred employee costs, I urge the Commission to reject the proposed adjustment of the HSS/ARI.

F. Recovery of Stranded Costs

1. Proposals to Adjust the Level of Stranded Cost Recovery

(a) Mitigation

(i) Duquesne's Proposal

The Company finds the only party that seriously questions Duquesne's mitigation efforts is HSS/ARI. HSS/ARI itself recognizes, however, that "Duquesne has taken steps towards mitigating costs," HSS St. 1 at 65, and "has been making progress towards reducing its production and operation costs." Id. at 62. That is an understatement. As Mr. Clayton testified, by the year 2005 Duquesne's mitigation efforts will have achieved $1 billion in savings and $700 million in avoided rate increases. Duquesne St. 1 at 20; Duquesne St. 2 at 24-26; See, generally Duquesne St. 2 at 3-26. Moreover, Duquesne is the only utility in the state to have auctioned a generating unit prior to the Act, using the proceeds to increase the depreciation of nuclear assets. Duquesne St. 2 at 10-12; Duquesne St. 1-R at 21. In stark contrast, HSS does not propose mitigation strategies. It simply proposes "adjustments" to lower rates, not operating costs.[109] The recommendations should be rejected as arbitrary and meritless. Duquesene M.B. at 51-52.

(ii) The OCA's Position

The OCA finds the reasonable level of the Company's owned-generation stranded costs at January 1, 1999 is $1.020 billion. OCA M.B., Table 1. Adding on regulatory assets

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[109] For example, HSS proposes to reduce rates through "assumed" (not actual) reductions in capital expenditures and O&M expense. HSS St. 1 at 64. Another example of supposed "mitigation" is lowering Duquesne's approved ROE. Id. at 77-83.

of $330.84 million, which includes other transition costs of $18.20 million, produces net stranded costs, on a stand-alone basis, at January 1, 1999 of $1.351 billion. Id. Subtracting out $152 million in merger-related savings produces stranded costs for the merged entity of $1.199 billion. Id. Of this amount, 0.1% should be allocated to the FERC jurisdiction. Id., n. 3; OCA M.B. at 57.

The Act provides for recovery of stranded costs for a period ending on December 31, 2005 unless the Commission, in its discretion, and for good cause shown, orders an alternative payment period. 66 Pa.C.S. §2808(b). It is OCA's position that the Company should be permitted to recover its stranded costs over this period. Consistent with the Act, OCA submits that, as a means of sharing stranded costs, the Company should not be permitted to recover a return on the unamortized balance of its owned-generation stranded costs. OCA M.B. at 57.

The OCA is also opposed to the Company's proposal to continue rates at the capped level subject to a final valuation in 2003 and its related proposals to commit to a minimum level of accelerated depreciation and amortization and its proposed ROE spillover mechanism. Instead, the Company should recover its stranded costs based on the amount of stranded costs determined in this proceeding. Further, to the extent that current rate levels exceed the sum of allocated T&D costs and the CTC (as delineated below), the generation portion of the Company's rates should be decreased to a market-based level. OCA would expect that this decrease would occur through two mechanisms. First, until all customers have access to an alternative provider of electric generation, the generation portion of Duquesne's customers' rates should be reduced to the level necessary to recover the OCA estimated market price of

generation and the CTC. For customers who, during this transition period, have a choice of alternative providers, they would be responsible only for the CTC portion of this rate; in other words, the "Competitive Generation Credit" (i.e., the amount by which customers bills to the utility are reduced to reflect its use of an alternative supplier) should be set as the difference between total generation-related rates at this lower level and CTC costs. OCA M.B. at 57-58.

After the phase-in period and until January 1, 2006, the Company's generation rates should reflect prevailing market prices as established purusant to Section 2807(e)(2) and (e)(3) of the Act up to the level of the rate cap. After January 1, 2006, generation rates for Duquesne's remaining generation customers will still be set at prevailing marrket rates, but will no longer be affected by the rate cap. OCA M.B. at 58.

The OCA also notes the Company's proposal incorporates a commitment to amortize $1.8 billion of stranded costs over the CTC recovery period if current rate levels are maintained, and it intends to adjust that commitment to reflect merger benefits if the merger is approved. N.T. 46. However, as discussed above, OCA submits that the Company will have greater incentives to mitigate stranded costs if they are determined in this proceeding. OCA M.B. at 58.

(iii) <u>The City's Position</u>

The City argues Duquesne's proposed stranded cost recovery mechanism purposely is designed to impair the formation of a competitive market. It offers no incentive for Duquesne to minimize its stranded costs. Duquesne has made no effort to mitigate stranded costs and makes no commitment whatsoever to do so in the future. City M.B. at 17.

Duquesne's current retail rates, which would remain in place under Duquesne's plan through 2005, are not competitive. Mr. Seiple testified as follows:

> . . . Duquesne's customers historically and currently pay some of the highest rates in the country. Duquesne's rates to residential customers are 25% higher than the comparable average for Pennsylvania. Duquesne's commercial rate is 42% higher than the comparable figure for its neighboring utility, West Penn Power. Similarly, Duquesne's industrial rate is 33% higher than West Penn Power's equivalent rate.

City St. 1 at 4, Table 1; City M.B. at 17.

Mr. Seiple further testified that Duquesne's Mr. Clayton was not close to being accurate when the latter testified that ". . . Duquesne's commercial rates compare favorably to the ECAR and MAAC [(or Mid-Atlantic Area Council)] averages and its industrial rates are below average in the ECAR and MAAC regions." Actually, Duquesne's average commercial rate is 17% higher than the ECAR region's average rate for investor-owned utilities and its industrial rate is 37% higher than the average. Of the 29 investor-owned utilities in ECAR, only three utilities have higher industrial rates than Duquesne and only five of 27 supplying power to commercial users in ECAR have higher rates than Duquesne. Id. at 17-18.

Duquesne's rates consistently rank among the highest in the United States. And Duquesne chose not to rebut Mr. Seiple's corrections of Mr. Clayton's glaring misstatements. Duquesne also did not attempt to refute either Mr. Seiple's testimony, or that of a number of other witnesses, stating that Duquesne's past mitigation efforts were minimal and were absolutely required by the financial condition of the Company and the level of rates Duquesne has been charging its customers. Id. at 18.

Duquesne brazenly refuses to make a future commitment to mitigate any of the substantial stranded costs it claims it has. Instead, Duquesne's response to the substantial criticism of the witnesses asserting that Duquesne has ignored its duty to mitigate is Mr. Marshall's tepid proposal for the shutdown study, scheduled for 1998. The company makes this response even though Duquesne was aware of the existence of large operating losses and the questionable economic viability of certain plants long before it filed this case on August 1, 1997. Yet, it chose not to address those issues in this case - just to propose, in its rebuttal case, to "study" them during 1998. The consequences of ignoring its duty to mitigate should be borne by Duquesne. Its mitigation efforts have not even approached the requirement of the Customer Choice Act that its efforts should be commensurate with the magnitude of its supposed stranded costs. Full mitigation reduces the costs for consumers and leads to earlier and more effective competition. Duquesne's approach, by contrast, is to have its ratepayers subsidize its efforts to impair competition. Id. at 18-19.

(iv) DII's Position

DII proposes two methods to arrive at a just and reasonable level of stranded costs to recover from ratepayers. First, the Commission should employ an equity return disallowance on stranded generating plant, similar to previous PUC treatment of generating costs determined not to be "used and useful." DII St. No. 1 at 14-21. Second, the Commission must consider Duquesne's mitigation efforts, including the possibility of the Company issuing securitized debt. DII St. No. 3 at 34-36; DII M.B. at 68.

Duquesne submits extensive testimony regarding its alleged historic and future mitigation efforts. See, Duquesne St. No. 2 at 3-21. DII takes no position on Duquesne's claimed past or future mitigation efforts. DII St. No. 1 at 15. As explained in detail below, DII requests that the Commission strongly urge Duquesne to purse securitization of its stranded costs as a final mitigation strategy to arrive at a just and reasonable recovery from ratepayers. DII M.B. at 68-69; DII R.B. at 33.

(v) HSS/ARI's Position

HSS/ARI contend the evidence demonstrates that Duquesne has failed to show that it has any stranded costs. The evidence further establishes that even if Duquesne had any stranded costs, its recovery of those costs should be denied based upon Duquesne's failure to fully mitigate, consistent with its obligations under the Act. HSS/ARI M.B. at 77-78.

HSS/ARI note Section 2808(C)(4) provides in pertinent part:

> [i]n determining the level of stranded costs that an electric utility may recover through the competitive transition charge . . . the Commission shall consider the extent to which the electric utility has undertaken efforts to mitigate generation-related stranded costs . . . .

Consistent with that mandate, Mr. Marshall testified:

> [W]e believe our obligation, our obligation is to fully mitigate our costs to the extent that we have assets that we are collecting dollars on. As part of the transition to customer choice we should do everything we can and we do everything we can to get any additional revenues in so we mitigate our stranded costs.

N.T. 120-121; HSS/ARI M.B. at 78.

Mr. Marshall agreed that if generation assets were sold at an amount above net book value, the excess recovery would be credited to ratepayers, thus mitigating stranded costs. N.T. 69-70. Mr. Marshall also acknowledged that he was aware of generation assets being sold "on a wide-spread basis." Marshall, N.T. 68. He further admitted that "the ones that I am aware of have been done above book value . . . ." N.T. 68; HSS/ARI M.B. at 78.

Thus, it is obvious that if Duquesne intended to carry forth with its "obligation" to fully mitigate, it would have placed its generation assets up for sale while there is a robust market that is paying in excess of net book value for existing generation plants. In fact, Merrill Lynch expressly advised Duquesne in 1995 that it believed there would have been a strong reception for Duquesne's assets at the time. Exh. RBW-56. Instead, Duquesne has one proposal before the Commission under which it would offer its assets for sale in 2003. Duquesne St. No. 2R at 3. And, it has another proposal before the Commission under which it would offer its facilities for sale immediately, but only if its proposed merger with APS is rejected. Duquesne St. No. 1 - Rejoinder at 1; N.T. 178-179. Thus, Duquesne's proposal to sell its generation assets now is a proposal that Duquesne intends to withdraw if its preferred goal, its proposed merger, is approved. Its proposal to sell assets in 2003 in no way can be deemed adequate mitigation. After all, there is no assurance that the seller's market that exists today for generation assets still will exist in 2003. Of course, that is not of particular concern to Duquesne because under its proposal it will be collecting CTCs during the four-year period that would proceed its proposed asset sale, notwithstanding the mitigation that could occur if the sale were to take place today. As a consequence, it cannot be determined that Duquesne has taken any step to carry forth with its obligation to mitigate stranded costs in view of its refusal

to place the assets up for sale today to capture the premiums that currently are being paid in the market for existing generation facilities. Thus, Duquesne's failure to mitigate properly should be taken into consideration in the Commission's evaluation of Duquesne's right to recover any stranded costs it arguably might have. HSS/ARI at 78-79.

(vi) The PRA's Position

The PRA suggests once stranded costs are quantified, the Commission must determine the allowed level permitted for recovery from ratepayers. The Duquesne plan for recovery of stranded costs contains several components. Duquesne seeks to maintain its capped rates over the entire transition period ending 2005. Duquesne's proposes to charge capped rates up to its allowed rate cap only until its stranded costs are recovered. Duquesne St. 2-R at 9. During the transition period, Duquesne will reduce its stranded costs through accelerated depreciation and amortization of its generation plant and its regulatory assets. OCA St. No. 1 at 8-9. This acceleration may be more rapidly deployed using the so-called ROE spill-over mechanism proposed by Duquesne. Id. at 9; PRA M.B. at 63.

The Act affirmatively requires Duquesne to mitigate its level of stranded costs. As discussed earlier, certain of the stranded cost component disallowances in this proceeding are based upon a need to mitigate. These should be adopted by the Commission. Id. at 63-63; PRA at 21.

(vii) The Environmentalists' Position

The Act imposes upon the utilities the undeniable responsibility to mitigate their stranded costs. The definition of "transition or stranded costs" are certain costs "which the commission determines will remain following mitigation by the electric utility."[110] Another section of the Act directs the Commission to consider "the extent to which the electric utility has undertaken efforts to mitigate generation-related transition or stranded costs by appropriate means in a manner that is reasonable under all of the circumstances . . ." and cites several specific mitigation strategies which should be considered.[111] It is interesting to note that the mitigation must be "commensurate with the magnitude of the . . . stranded costs" and that the duty to mitigate exists not just up to the filing of the restructuring plan, but extends throughout the transition period.[112] Env. M.B. at 22-23.

One proven mitigation strategy which Duquesne has reduced rather than expand in the recent past is demand-side management. Energy conservation and load management mitigate stranded costs because they reduce the retail allocation of Duquesne's stranded generating assets by reducing net retail peak load and freeing up capacity and energy for wholesale transactions. Id. at 23.

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[110] 66 Pa.C.S. §2803, definition of "Transition or stranded costs."

[111] 66 Pa.C.S. §2808(C)(4). This is another reason to recommend the trading account mechanism for the quantification of stranded costs.

[112] 66 Pa.C.S. §2808(C)(4).

(viii) Recommendation

No substantial evidence exists in this record to justify any adjustment to the mitigation efforts already committed to be undertaken by the Company. Therefore, I recommend none to the Commission.

(b) Sharing of Stranded Costs

(i) Duquesne's Position

The Company finds the OCA, DII and the Environmentalists each recommend a "sharing" of stranded costs.[113] Mr. Schnitzer summarized the method and effect of each of the proposals as follows:

> The OCA's sharing proposal is to allow seven year amortization, with no return, of generation stranded investment. As discussed by Mr. Clayton, this proposal translates to a $460 million stranded cost disallowance under OCA assumptions, and a larger disallowance under Company assumptions. The Industrials' sharing proposal is to allow amortization, with no equity return, of generation stranded investment. This proposal would result in a $232 million disallowance under Industrials' assumptions, and a larger disallowance under Company stranded cost assumptions. In addition, as described by Mr. Clayton, the OCA and the Industrials recovery proposals provide for an additional "sharing" of $42 million and $166 million respectively, due to treatment of deferred taxes. The Environmentalists recommend no more than 60 percent recovery of generation stranded investment. Under Company stranded cost assumption, this proposal would result in a disallowance of at least $766 million. Duquesne St. 3-R at 33-34.

Duquesne M.B. at 52.

[113] It should be noted that these "sharing" proposals must be addressed irrespective of whether Duquesne's auction proposal is accepted. OCA St. 1-S at 6.

There are four principal reasons why these proposals should be rejected. First, there is no support for them in the Act. The sole consideration set forth in the Act regarding the level of stranded cost recovery is mitigation. 66 Pa. C.S. §2808(c)(4). Yet none of these parties has contended that Duquesne's mitigation efforts were inadequate, Duquesne St. 1-R at 18; consequently, there is no basis for any disallowance of its stranded costs. See, PECO Energy, Slip Op. at 101 ("allowing PECO full recovery of its actual stranded costs"); Duquesne M.B. at 53.

Second, these proposals are not, as they purport to be, consistent with historic regulation in Pennsylvania. The OCA and DII contend that their proposals parallel past decisions regarding "economic excess capacity," OCA St. 1 at 42; DII St. 1 at 16, but this is plainly not the case. As explained by Mr. Marshall:

> I am unaware of any case (and the parties do not refer to one) in which the Commission disallowed the recovery of embedded generation costs on the basis of a comparison of those costs to market price forecasts, which assumed that the capacity could be replaced by purchases in the spot market. No such assumption would have been appropriate, given that utilities have had an obligation to serve their loads on a long-term basis. That obligation has never been discharged through reliance solely on the spot market (or the "coordination" market as it has been called traditionally).

Duquesne St. 1-R at 20. Notably, neither the OCA nor DII rebutted Mr. Marshall on this point. OCA St. 1-S at 9; DII St. 1-S at 8-10; Duquesne M.B. at 53.

Third, the proposals are arbitrary in that they bear no relation to the facts of this case. The OCA and DII proposals impose a pre-conceived return disallowance without any regard to Duquesne's particular circumstances, its past mitigation efforts, or the effect of the disallowance on Duquesne. Duquesne St. 3-R at 37; Duquesne St. 1-R at 18. The

Environmentalists' proposal is equally arbitrary, turning, as it does, on "an accident of history, the average vintage of Duquesne generation." Duquesne St. 3-R at 37. In sum, they are all "blunt instruments" that have a singular purpose: "to shift costs from customers to investors." Id.; Duquesne M.B. at 53-54

Fourth, the proposals violate state and federal law, including Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989),[114] in two principal respects. First, the violate they "end results" test by failing to maintain the financial health of Duquesne. The financial impact of these proposals is profound (ranging from approximately $400 million to $760 million, Duquesne St. 3-R at 33-34) and "would severely damage the financial integrity of the Company." Duquesne St. 2-R at 45. Perhaps this is not surprising, given that none of these parties even bothered to evaluate the financial impact of its proposed disallowance on Duquesne. Second, they represent precisely the kind of "opportunistic switching" proscribed by the Court in Duquesne - i.e., the convenient modification of ratemaking standards at a time when it benefits only customers. Duquesne St. 3-R at 38. As Mr. Schnitzer asserted, and no party rebutted, Duquesne has not been compensated for the effect of such a change in standards. Duquesne St. 3-R at 38-42. Indeed, the opportunistic nature of the switch could not be more apparent in this case, given the Commission's recent treatment of the Ft. Martin sale:

> As noted by many witnesses here, the sale price exceeded the book value of Duquesne's interest, but the proceeds were not used to increase the returns to shareholders beyond approved levels;

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[114] See, e.g., Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944); Bluefield Water Works and Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1923); Pennsylvania Pub. Util. Comm'n v. Pennsylvania Gas & Water Co., 492 Pa. 326, 424 A.2d 1213 (1980); City of Pittsburgh v. Weinberg, 544 Pa. 286, 676 A.2d 207 (1996); Pa. Const. Art. 1, §10.

> rather, consistent with rate of return regulation, the gain was used to accelerate the amortization and depreciation of strandable assets. Thus, Duquesne's shareholders did not "share" the gains. It is therefore neither fair nor consistent for the OCA (and others) to contend that, for the remaining plants - where market values are below book values - it is "just and reasonable" for shareholders to bear an economic loss.

Duquesne St. 1-R at 20-21.[115] In sum, there is no basis in law or fact for the sharing proposals. Duquesne M.B. at 54-55.

The Company notes the OCA and DII cite several cases in support of the contention that a sharing disallowance is "consistent with established ratemaking policy and practice in Pennsylvania." OCA M.B. at 59; accord DII M.B. at 69. None of these cases, however, addressed economic excess capacity, which is the gravamen of the OCA and DII claim. OCA St. 1 at 41 (nuclear generation "would normally be considered 'economic excess capacity'"); DII St. 1-S at 9. Two of the cases involved disallowances for physical excess capacity,[116] while the other involved a plant (TMI) that was shut down and thus was not used and useful.[117] Moreover, neither party cites the most recent case on economic excess capacity,

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[115] The same point applies to the Commission's past treatment of the net revenues to be received from the proposed sale to GPU which were to be passed through to ratepayers. Duquesne St. 1 at 26.

[116] Philadelphia Electric Co. v. Pennsylvania Pub. Util. Comm'n, 61 Pa. Commw. 325, 433 A.2d 620 (1980); Public Util. Comm'n v. Pennsylvania Power & Light Co., Docket No. R-842651, 59 Pa.P.U.C. 332, 67 PUR 4th 30 (1985), aff'd, 101 Pa. Commw. 370, 516 A.2d 426 (1986). "Physical excess capacity" means that the utility has constructed more capacity than is necessary to reliably serve customers. There is no claim here that Duquesne has "too much" capacity, Duquesne St. 9 at 9; the argument is that the capacity is "too expensive." OCA St. 1 at 41.

[117] Pennsylvania Elec. Co. v. Pennsylvania Pub. Util. Comm'n, 509 Pa. 324, 502 A.2d 130 (1985), appeal dismissed sub nom., Metropolitan Edison Co. v. Pennsylvania Pub. Util. (continued...)

Pennsylvania Pub. Util. Comm'n et al. v. Pennsylvania Power & Light Co. ("PP&L"), 1995 Pa. PUC LEXIS 189 (Pa. P.U.C. 1995), aff'd sub nom., Popowsky v. Pennsylvania Public Util. Comm'n, 695 A.2d 448 (Pa. Commw. Ct. 1997), appeal denied, 702 A.2d 1062 (Pa. 1997). In PP&L, the Commission rejected the OCA's economic excess capacity adjustment (which was proposed by Mr. Kahal), "concur[ring]" that the "highly speculative nature of the OCA's market price projections" merited their rejection. 1995 Pa. PUC LEXIS 189, *19.[118] Duquesne R.B. at 9-10.

(ii) The OCA's Proposal

The OCA notes the Act provides for recovery of the Company's net non-mitigable stranded costs, requires that the Commission allow recovery of regulatory assets and NUG buy-out costs, but gives the Commission discretion in determining the reasonable level of owned-generation stranded costs that the Company may recover. As discussed below, OCA submits that the Commission should allow the Company to recover, on an amortized basis, its owned-generation stranded costs, but that it should not be allowed a return on the unamortized balance of such costs during the recovery period. OCA M.B. at 58

Duquesne's owned generation stranded costs of $1.020 billion on a stand-alone basis are substantial and are only slightly lower than the net book value of all of its generating

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(...continued)
Comm'n, 476 U.S. 1137 (1986).

[118] The Commission also "concur[red]" that PP&L's "statutory obligation to serve would have precluded" it from relying solely on market purchases. PP&L, 1996 Pa. PUC LEXIS 189 *19. That is consistent with Duquesne's testimony here. Duquesne St. 1-R at 20.

units. As OCA witness Kahal testified, what is striking about these amounts is that "virtually the entire amount is attributable to Duquesne's three partially owned nuclear units." OCA St. 1 at 41. Indeed, when life extension benefits are considered for the non-nuclear units, "there are no significant stranded costs" associated with the Company's non-nuclear units. Id. The significant level of stranded costs associated with the nuclear units exists even though the nuclear units account for only about one-quarter of Duquesne's installed capacity. Id.; OCA M.B. at 58-59.

Mr. Kahal explained why Duquesne's nuclear units have presented such a problem:

> There are two reasons why the nuclear units produce such a serious problem for Duquesne. First, the investment costs, and hence the net book values, are very high, despite the progress made under the Ft. Martin initiative. Second, the operating costs of these plants are very high making it very difficult to generate significant net margins from competitive market sales. Hence, there is little net revenue to offset net book value. There is little doubt that these plants should be considered to be "economic excess capacity" if this were a standard rate case.

OCA St. 1 at 41; OCA M.B. at 59.

OCA witness Kahal testified that in light of the "just and reasonable" standard for recovery of owned-generation stranded costs, and the fact that virtually all of the Company's stranded costs are "economic excess capacity," a sharing of such costs is clearly appropriate. OCA St. 1 at 41. This is consistent with established ratemaking policy and practice in Pennsylvania, which has allowed the Commission to deny a return on capacity which is not used and useful or which constitute uneconomic excess capacity. See, e.g., Philadelphia Elec. Co. v. Pennsylvania Pub. Util. Comm'n, 61 Pa. Commw. 325, 433 A.2d 620 (1980) (Commission

excess capacity disallowance of the full return on several existing power plants that had previously been included in rates upheld by the Commonwealth Court) and Pennsylvania Elec. Co. v. Pennsylvania Pub. Util. Comm'n, 509 Pa. 324, 502 A.2d 130 (1985), appeal dismissed sub nom., Metropolitan Edison Co. v. Pennsylvania Pub. Util. Comm'n, 476 U.S. 1137 (1986) (Pennsylvania Supreme Court upheld the Commission's decision toexclude from rates the utilities' investment in Three Mile Island Nuclear Station, also finding that the financial well-being of the utility is but one aspect of the balancing test); Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989) (upholding a ruling that a utility could be denied any return on or recovery of canceled plant costs even though the costs were admitted by all parties to be prudently incurred). Additionally, Section 1315 of the Public Utility Code codified the long-standing principle that electric utility assets which are not "used and useful" in providing service to the public should not be included in rates. 66 Pa.C.S. §1315; OCA M.B. at 59-60

Mr. Kahal recommended that a reasonable sharing of such costs would be to allow the recovery in transition charges of the principal amount of the owned generation stranded cost over the seven-year transition period, but with no return applied to the unamortized balance. OCA St. 1 at 41. Mr. Kahal explained why a sharing in this way is reasonable in comparison to Duquesne's proposal to recover 100% of stranded costs:

> Given the circumstances, Duquesne's position that ratepayers must absorb 100 percent of stranded costs for the Company's uneconomic nuclear units is not reasonable. It is inconsistent with past ratemaking policy in Pennsylvania, which has not allowed a return on plant which was not used and useful. Duquesne's expensive nuclear plants are not used and useful in the sense that they do not provide a net economic benefit to customers. Shareholders who are accountable for these past nuclear investments, and who have benefited in recent years from the

> Company's favorable earnings, should bear some of the costs of these uneconomic investments.

Id. at 42; OCA M.B. at 60.

While OCA submits that Duquesne should not be provided a return on these investments through stranded costs, OCA would note that it is, nonetheless, possible that the Company will be able to earn a return on this investment if Duquesne is able to realize efficiencies that have not been assumed in OCA's analysis. OCA St. 1 at 42-43. As Mr. Kahal noted, the Company's stranded costs are primarily limited to its nuclear units and it can expect to earn reasonable, very attractive returns in the competitive market on its coal plant investment. Id. Furthermore, with respect to its nuclear investment, if the Company is able to lower operating costs and improve performance, it may be able to generate positive margins on those plants. Id. For example, as Mr. Kahal points out, OCA witness Smith's analysis assumes less optimistic nuclear plant availability than Duquesne itself has assumed and believes it can achieve. Id. Mr. Kahal has also made the convservative assumption that Duquesne's cold reserve capacity has no market value. Id.; OCA M.B. at 60.

In light of the above, OCA submits that a reasonable and appropriate sharing of Duquesne's stranded costs is provided by not allowing a return on the unamortized balance of its owned-generation stranded costs during the transition period. Id. at 61.

While the Act clearly indicates that the Commission must consider mitigation, it does not specifically tie the Commission's allowance of owned-generation stranded costs only to mitigation. 66 Pa. C.S. §§2808(c)(3) & (c)(4). Rather, the statute gives the Commission discretion in determining the level of owned-generation stranded costs that "may be recovered" and sets forth numerous interests that the Commission must balance in its decision under the

Act. 66 Pa. C.S. §§2802(8) and 2808(c)(3). Clearly, then, the Commission has the authority to consider a division of stranded costs between shareholders and ratepayers to the extent that such division of costs is otherwise consistent with the Act, the Public Utility Code, ratemaking principles, and the Constitution. As discussed in OCA's Main Brief, OCA's argument that shareholders should bear a portion of stranded costs (through the denial of a return on those costs) turns on the fact that the Company's uneconomic nuclear generating assets, while representing only about one-fourth of the Company's generating capacity, are almost entirely responsible for the Company's stranded costs. See, OCA M.B. at 58-61. As noted there, in previous cases, the Commission has determined to deny a return on uneconomic excess capacity and those determinations have been upheld by the Courts which have recognized the Commission's discretion to deny a full return on or recovery of costs even though the investments may have been prudent when made. Id. at 59-60; OCA R.B. at 17.

The Commission's rate determinations and policy initiatives have also, either explicitly or implicitly, provided for sharing of costs. In particular, the Commission's longstanding ratemaking policy of amortizing unusual and extraordinary expenses over a number of years without an allowance for carrying costs on the unamortized balance of such expenses provides for a sharing of costs similar to that proposed by OCA in this case. Pa. P.U.C. v. Dauphin Consol. Water Supply Co., 55 Pa. PUC 47 (1981) and Butler Twp. Water Co. v. Pa. P.U.C., 81 Pa. Commw. 40, 47-48, 473 A.2d 219, 223 (1984);accord. Pa. P.U.C. v. Peoples Natural Gas Co., 71 Pa PUC 135 (1989). Furthermore, in dealing with LDC recovery of natural gas utility take-or-pay costs, the Commission clearly imposed a sharing requirement for such costs, which was found to be consistent with the law. 52 Pa. Code §69.181; National Fuel

Gas Dist. Corp. v. Pa. P.U.C., 677 A.2d 882 (Pa. Commw. 1996). As noted in OCA's Main Brief, the Commission has previously determined that the denial of the return of and/or the return on the investment is an appropriate treatment of electric generation costs that are not used and useful, and those decisions have been upheld by the Courts. Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989); Philadelphia Elec. Co. v. Pennsylvania Pub. Util. Comm'n, 61 Pa. Commw. 325, 433 A.2d 620 (1980); OCA R.B. at 17-18.

The Company also argues that the proposed sharing of stranded costs is arbitrary and bears no relation to Duquesne's particular circumstances, its past mitigation efforts, or the effect of the disallowance on Duquesne. Duquesne M.B. at 53-54. OCA submits that, to the contrary, the disallowance reflects the peculiar circumstances of Duquesne and, in particular, its history of uneconomic nuclear investments. While OCA agrees that the Company has made some efforts to mitigate some of this uneconomic value, there is still over $1 billion in uneconomic costs that ratepayers will have to pay. It simply is not equitable for ratepayers to have to pay all of those uneconomic investment costs over the next seven years and, in addition, pay a return on such uneconomic investments. The denial of a return on these uneconomic investments is a fair burden for shareholders when ratepayers are being asked to cover all the sunk cost of the investment. Furthermore, OCA's restructuring proposal would allow the Company to retain any cost savings or operational efficiencies from these nuclear plants that it is able to achieve. Since OCA has assumed operation of these plants at only a 75% capacity factor and has not included any productivity adjustment for such plants, and the Company believes that they can be operated at a higher capacity factor and may be able to lower operating costs, the Company may well realize nuclear plant margins that significantly exceed OCA's

forecasts. See, OCA M.B. at 60. If that is the case, the Company will be able to reduce the carrying costs that it bears during the CTC recovery period. Id. Thus, OCA submits that the proposed sharing is reasonable and not arbitrary. This is not, as the Company argues, an attempt to "shift" costs but to provide a sharing of the burdens of restructuring in a manner that, in other contexts, the Commission has found to be appropriate. Id. at 18-19.

Duquesne also argues that the proposals violate state and federal law in that the end result of the sharing proposals is a profound impact on the financial integrity of the Company. Duquesne M.B. at 54-55. OCA submits that its proposals are consistent with the law and would not have the profound impact on the Company's financial integrity that the Company claims. OCA R.B. at 19.

In looking at the issue of financial integrity, the Commission must put the issue in perspective. First, it is important to recognize that while the Company's earnings may be lower in the short term with lower market prices in the early years, this situation is expected to reverse in the "out-years" (the years after the CTC recovery period) when the Company will realize greater market value from their generating plants. This sequence of events is reflected in both the Company's and OCA's market price forecasts. Thus, the result, with respect to earnings from the Company's generating plants, will be lower earnings in the early years and higher earnings in the later years. Id.

With respect to this earnings' impact, then, the Company's argument is not with OCA but with the nature of competition and the Act's requirement that stranded costs be determined on a net present value basis over the life of the asset or liability, with recovery of those costs over a seven-year period. The result of this process is by definition lower returns

in the short-term traded for higher returns in the future. Stated differently, rates during the transition period reflect the present value of future earnings streams, which when the market reverses, will exceed revenue requirements on a traditional ratemaking basis. If the Company believes that because of concerns over financial integrity it cannot wait to recover these revenues over the life of the plants, then it could divest today and recognize that present value currently. Id.

Second, OCA's proposal for sharing of stranded costs is no different than other sharing proposals that have been adopted by the Commission in the past. The Company has emphasized that OCA's proposal denies it $460 million.[119] It needs to be emphasized that this is the full revenue requirements effect. The impact on earnings will be a much smaller amount, and this amount is magnified by the fact that the sharing is occurring over the seven-year CTC recovery period rather than being spread out over the life of the assets, a result driven by the write-down of stranded costs over this period. Id. at 20.

OCA also disagrees with the Company's assertion that OCA's proposal provides any "opportunistic switching" of the ratemaking standard for recovery of costs. To the contrary, this proposal continues the same treatment of uneconomic capacity costs that OCA has argued for years is appropriate and that the Commission has, on a number of occasions, implemented.

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[119] The basis for these numbers was not specified in the Company's rebuttal testimony so it is difficult to determine whether the numbers are accurate. Other numbers in this section of Company witness Clayton's testimony are inaccurate. For example, Mr. Clayton asserts that OCA's proposal provides "a 39% disallowance of the revenue requirement that Duquesne would otherwise receive under the rate cap." Duquesne St. 3-R at 48. In contrast, OCA witness Lee Smith's Direct Testimony clearly shows a rate reduction from current revenue levels of 18.3%, which, as shown in Table 2 of OCA's M.B., is now 16.9%. OCA St. 4, Exh. LS-4.

There is no change here other than the fact that ratepayers are being asked to pay these costs over a shortened time frame. Id.

The OCA submits that sharing is appropriate, consistent with the Act, and will not significantly impair the Company's financial integrity. Id.

(ii) DII's Proposal

DII explains one method to arrive at the recoverable level of stranded cost is via an adjustment to the stranded generation portion of the total claim. After Duquesne's total level of qualifying stranded generation costs is determined, the Commission may allow ratepayer recovery for only a "just and reasonable" portion of that total. 66 Pa. C.S. §2808(c)(3); DII M.B. at 69.

DII recommends that an appropriate mechanism for Commission use to implement this mandating balancing of interests and determination of just and reasonable levels of recoverable generation-related stranded costs is the "equity return disallowance." DII St. 1 at 19.

> A fair and reasonable methodology would eliminate the equity component of return on the unamortized balance of stranded generation costs, during the seven year transition period in which the CTC is recovered.

Id. The equity return disallowance compares the revenue requirement NPV associated with stranded generation costs (at a fully grossed up return level with a common equity return component) to a similar calculation without a common equity component. Id.; DII M.B. at 69.

The equity return disallowance has been previously used by the Commission regarding assets not used and useful. See, e.g., Public Utility Commission v. Pennsylvania

Power & Light Company, Docket No. R-00842651, Order entered on April 26, 1985, 59 Pa. P.U.C. 332, aff'd, 101 Pa. Commw. 370 (1986) (disallowing return on common equity associated with Susquehanna Unit 2 because the unit was excess capacity). Stranded generation costs are, by analogy, no longer used and useful in the competitive market because stranded costs do not provide electric utility service in and of themselves. DII St. 1 at 15-16. As in the past, the equity return disallowance represents a reasonable approach to making necessary adjustments to uneconomic generation costs to arrive at a just and reasonable customer recovery level. DII St. 1 at 15-21. Based on the DII recommended level of stranded generation costs, the equity return disallowance should be $232.289 million (jurisdictional). Id. at 9, Exh. SJB-2; DII M.B. at 69-70.

The Commission has previously stated that it considers the level of past and anticipated mitigation as an element in determining the just and reasonable level of recoverable stranded generation-related costs. PECO Restructuring Order at 100. However, the Commission also noted that it has the "discretion under Sections 2804(13) and (14) to disallow recovery of a portion of accurately quantified 2808(c)(3) stranded costs." Id. DII respectfully submits that exercise of that discretion is appropriate based on the evidentiary record in this proceeding. The use of the equity return disallowance is a reasonable method to arrive at a just and reasonable level of stranded costs to be recovered from ratepayers. DII respectfully requests that the equity return disallowance be employed in this proceeding. DII M.B. at 70.

DII notes the Company advances four arguments against the application of any type of sharing of stranded costs. Duquesne M.B. at 52-55. Each argument is baseless. DII R.B. at 33.

First, the Company claims that there is no support in the Act for any type of sharing of stranded cost. Id. at 53. The Company claims that the sole consideration set forth in the Act regarding the level of stranded cost recovery is mitigation. Id. As DII explains, the Act clearly states that only a just and reasonable level of stranded generation-related costs are recoverable from ratepayers to the CTC. See, DII M.B. at 27-28. Although mitigation is one element that the Commission is required by the Act to consider, the Commission has specifically recognized that it has the "discretion under Sections 2804(13) and (14) to disallow recovery of a portion of accurately quantified 2803(c)(3) stranded costs." PECO Restructuring Order, Slip Op. at 100. In addition, the Company admits that additional factors can be analyzed in establishing stranded cost levels. N.T. at 57-58. DII submits that the Commission should use its discretion to disallow a portion of Duquesne's stranded generation-related costs. DII R.B. at 33-34

Second, Duquesne claims that the DII proposal is not consistent with historic regulation for excess capacity in Pennsylvania. Duquesne claims that its witnesses' testimony on this point is unrebutted. Duquesne M.B. at 53. Duquesne is mistaken. DII specifically addresses Mr. Marshall's assertion:

> Q: Mr. Marshall indicates that he is unaware of any instance in past Pennsylvania proceedings where an economic excess capacity adjustment has been made based on a comparison between embedded cost and market prices. Do you believe that this is a valid criticism of your proposed sharing adjustment to arrive at a just and reasonable level of generation stranded cost for recovery form ratepayers?
>
> A. No. The used and useful concept that I have discussed in my direct testimony is based on the ratemaking concept of economic excess capacity. Historically, in rate proceedings in which *economic* excess capacity has been an issue, the analysis compared

embedded cost to the opportunity cost associated with a more economic alternative. For example, the life cycle cost of a nuclear unit would be compared to the life cycle cost of a combustion turbine to determine the present value "excess" costs associated with the investment in the nuclear unit. An economic excess capacity adjustment would then be based on the disallowance of all or a portion of the uneconomic amount of the investment being considered for ratemaking.

Q. Is a stranded cost analysis similar to an analysis of economic excess capacity?

A. Yes. The main difference in the stranded cost analysis is that the opportunity cost is the market price. In other words, a comparison is made between the cost of an investment (including operating cost) and the alternative or opportunity cost associated with market based pricing. In this manner, a stranded cost analysis is similar to an economic excess capacity analysis. DII's proposed sharing mechanism recognizes this underlying similarity and has relied on the used and useful standard as well as the Competition Act to arrive at a reasonable basis for sharing the stranded cost associated with Duquesne's generating units. The fact that the Commission has not disallowed a utility's investment or a cost based on a comparison of embedded cost to market prices does not change the fundamental nature of the used and useful principle, nor does it change the concept of an economic excess capacity evaluation based on opportunity cost.

DII Statement No. 1S at 8-10. This situation is clearly analogous to the excess capacity situations in which an equity return disallowance has been used in the past. See, e.g., Pennsylvania Public Utility Comm'n v. Pennsylvania Power & Light Co., Docket No. R-00842651, Order entered on April 26, 1985, 59 Pa. P.U.C. 332, aff'd 101 Pa. Commw. 370 (1986) (disallowing return on common equity associated with Susquehanna Unit 2 because the unit was excess capacity). Therefore, the DII proposal is entirely consistent with historic regulation in Pennsylvania, notwithstanding Duquesne's claims to the contrary. DII R.B. at 34-35.

Third, the Company faults the DII sharing proposal as being "arbitrary." Duquesne M.B. at 53. The DII proposal is not arbitrary, because it considers Duquesne's particular circumstances (i.e., Duquesne's debt structure). DII St. 1 at 19. Duquesne's debt structure is not an arbitrary rationale to strike the mandated sharing between ratepayers and shareholders. Instead of an equitable sharing the stranded costs, Duquesne would have ratepayers bear the full burden of the transition to a competitive market. DII R.B. at 35.

Fourth, the Company claims that the DII proposal violates state and federal law because it fails to maintain the financial health of the Company and because it represents an "opportunistic switching" in ratemaking standards. Duquesne M.B. at 54-55 (citing Duquesne Light Company v. Barasch ("Barasch"), 488 U.S. 299 (1989)). Duquesne is misguided. DII R.B. at 35.

With respect to the financial impact on the Company, the Company admits that, in the end, the entire decision with respect to the stranded costs must be examined as a whole in order to determine its impact on the Company and on ratepayers. N.T. at 57-58. Ratemaking decisions, traditionally, have been reviewed with respect to the entire decision and not individual component parts. Barasch 488 U.S. at 310. In addition, the equity return disallowance does not represent opportunistic switching of ratemaking because the Commission's treatment of the Fort Martin sale came in the context of a settlement and not in the context of a litigated Commission-decided proceeding. DII submits that the Company's arguments in this regard must be denied. DII R.B. at 35.

DII explains the Commission should employ the equity return disallowance as a reasonable method to share stranded costs between shareholders and ratepayers. See, DII M.B.

at 69-70. Contrary to Company claims, a fair basis exists in law and fact to employ DII's sharing proposals. DII R.B. at 35-36.

(iv) **The PRA's Position**

The PRA finds both the OCA and DII have proposed methods of "sharing" of stranded costs between shareholders and ratepayers. Duquesne contends that (i) the OCA caps would disallow any return (debt or equity) on Duquesne's stranded generating assets and (ii) DII would disallow any equity return on those equity assets. PRA M.B. at 64.

The PRA emphasizes it is the Commission's duty and obligation to establish a "just and reasonable" level of stranded costs. The Act does not specify nor mandate a particular level of recovery of stranded costs. Contrary to the implications of Duquesne's statements, the Act does not insure 100% recovery of stranded costs. Rather, the Act reflects a balancing of competing positions noting that the recovery of stranded investment is a form of "accelerated depreciation" of recovery of generating assets over a seven-year time period rather than the remaining book life of the asset. As emphasized by OCA witness Kahal, this is a significant benefit in regard to the remaining 30 years over which recovery of the costs of Perry and Beaver Valley 2 would occur under standard rate regulation by this Commission. OCA St. 1-A at 9. *Unfortunately, Duquesne fails to take into account the significant financial benefit to* shareholders. Finally, the DII proposal is merely an offshoot of the OCA proposal, yet it too relies on the correct interpretation that the Act does not require 100% recovery of stranded costs. DII's analysis to equate stranded generation costs with facilities that are no longer used

and useful (from an economic perspective) in a competitive market environment is a useful analogy:

> Although the legislation implementing retail competition in Pennsylvania envisions that utilities will experience such stranded generation costs, and that recovery of those costs (after mitigation) should be considered by the Commission, the clear implication of the legislation is that these costs are no longer used and useful in providing electric service. It is also clear that stranded costs (representing intangible costs) do not provide electric utility service in and of themselves. Rather, they represent a transition from a regulated to a competitive environment.
>
> Given the nature of stranded generation costs, and the relative comparability to generating costs that had previously been considered by the Commission as being not used and useful (for example, excess capacity), I believe it is appropriate to consider a discount factor based on prior Commission remedies associated with the treatment of generating costs that had been found to be not used and useful. One such remedy that has been used by the Pennsylvania Public Utility Commission and other state commissions is the disallowance of an equity return on the investment associated with facilities that are found to be not used and useful. I believe that an equity return disallowance is an appropriate mechanism to adjust stranded generation costs for recovery from ratepayers through a CTC.

DII St. No. 1 at 16; PRA M.B. at 65.

Duquesne simply misplaces the intent of the Legislature. In a competitive market, nothing is guaranteed; this is the clear import of the Commission's decision in the PECO matter. Further significant financial benefits accrue to utilities under the Act. Duquesne's approach upsets this Legislative intent by ensuring that it faces no risk in a competitive retail generation market since it receives 100% recovery of its existing rate levels and costs. This approach should be rejected by the Commission. PRA M.B. at 66; PRA R.B. at 21-22.

(v) The Environmentalists' Position

The Environmentalists explain one of the policy declarations contained in the Act is that:

> [i]n moving toward greater competition in the electricity generation market, the Commonwealth must resolve certain transitional issues in a manner that is fair to customers, electric utilities, investors, the employees of electric utilities, local communities, nonutility generators of electricity and other affected parties.[120]

The legislative history is clear that there is no utility entitlement to 100% recovery of its stranded investment. In the Senate debate on the Act that occurred on November 25, 1996, Senator Piccola cited, with favor, a November 14, 1996 letter from Irwin A. Popowsky, Consumer Advocate, which stated that under the Act, the burden of stranded costs would be "shared" by the utilities and the customers. The OCA letter emphasized that:

> [i]t is extremely important to note that utilities are not guaranteed full stranded cost recovery under this bill. With respect to utility-owned and operated generation facilities, the PUC must determine the appropriate level of stranded costs that is just and reasonable to recover from ratepayers . . . .[121]

While recognizing nothing prevents a utility from requesting 100% recovery of its stranded costs, he stated that the utility may only recover its stranded costs "to the extent that the PUC determines it to be just and reasonable."[122] Env. M.B. at 23-24.

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[120] 66 Pa.C.S. §2802(8).

[121] Legislative Journal - Senate, November 25, 1996 at 2688.

[122] Legislative Journal - Senate, November 25, 1996 at 2688.

Senator Brightbill also confirmed this recognition that the Act did not guarantee utilities a 100% recovery of their stranded investment: ". . . in California they guaranteed the utilities a 100-percent return on their stranded investment. Here we make no such guarantee."[123] Env. M.B. at 24.

Addressing this theme of a fair sharing of the responsibility, Environmentalists' witness David Schoengold testified:

> The amount of stranded generating assets represents a large economic loss. There are large amounts of wasted dollars which will not produce anything of value, but must be dealt with. I do not believe it is correct to hold the customers entirely responsible for this loss. To do so would be to treat the stockholders as if there were no economic loss at all. I believe a sharing of the economic loss is appropriate.[124]

For his testimony in this proceeding, Mr. Schoengold developed a model which examines depreciation, remaining rate base and the year-by-year returns on rate base. The stockholders' initial investment in the generation assets was $835 million ($2.084 billion of production plant *x* the equity fraction of 40.1%). Noting that stockholders receive a significant portion of their investment back through already-booked depreciation, he estimated that Duquesne stockholders have already recovered 41% of their investment in generating plant, for a depreciation recovery of $342 million.[125] Mr. Schoengold's simple return model shows that when Duquesne's accumulated depreciation has reached 41% of the initial investment, the authorized returns on

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[123] Legislative Journal - Senate, November 15, 1996 at 2692.

[124] Env. St. 1 at 19-20.

[125] Env. St. 1 at 20.

investment have totaled 126.5% of the initial investment.[126] The total authorized returns have, thus, been $1.057 billion ($835 billion *x* 126.5%) and the total dollars to Duquesne stockholders (depreciation plus return) have been $1.4 billion (recovered depreciation of $342 million + return of $1.057 billion). The internal rate of return of their investment to date has been approximately 8.8%.[127] Env. M.B. at 25-26.

Mr. Schoengold then went on to analyze the level of stranded generating asset cost recovery which would be necessary in order for the shareholders to continue a 9% rate of return through the end of the transition period, ie., to do as well in the transition period as they have done to date. He determined that a stranded generating asset recovery fraction of 60% was adequate to pay off the debt holders and to provide the stockholders with a return of their investment and a 9% return on their investment.[128] Mr. Schoengold calls this "a reasonable return . . . on bad investments . . . ." By limiting the stranded generating asset recovery to 60%, the customers should have an opportunity to see real reductions in their cost of electricity. Env. M.B. at 26.

In rebuttal to Mr. Schoengold's methodology and recommendation, Duquesne witness Mr. Clayton argued that:

> Mr. Schoengold's analysis must be rejected because it attempts to carve out specific assets and assess whether or not investors have received a hypothetical return. This carving out of specific assets to assess investor returns is preposterous. Investors invest in the Company as a whole and intend to earn overall return. It is not

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[126] Env. St. 1, Exh. DS-3.

[127] Env. St. 1, Exh. DS-4.

[128] Env. St. 1, Exh. DS-5.

> possible to credibly remove any particular group of assets from the Company to assess whether or not investor's [sic] have been fairly treated.[129]

In his surrebuttal testimony, Mr. Schoengold agreed that stockholders invest in a company as a whole and not in individual assets, but noted that:

> " . . . the perspective of the Public Utility Commission is quite different from that of the stockholders. The PUC makes judgments on individual assets all the time. If an investment is disallowed, this is a judgment on an individual asset. If a rate case is delayed, the assets added since the determination of the rate base in the last rate case are treated differently than those already in the rate base. As a result, the return on investment on the rate base is hardly ever the same as the return on investment in the entirety of the utility's capital.
>
> As another example, when utility assets are treated as below-the-line investments, the treatment of those assets is different than above-the-line investments. To take this example even further, in the case of a utility owned by a holding company with no public ownership of the utility stock (but, instead, only public ownership of the holding company), stockholder return on investment is only indirectly related to return on the regulated utility portion of investment. I believe the evidence is clear that stockholders can deal with the situation of differential treatment of different portions of their investment.
>
> Thus, the approach I recommended in my direct testimony is based on common practice.[130]

The Environmentalists argue that Mr. Schoengold presents a reasonable and proper approach to the issue of sharing stranded generating assets. He contends that the stranded generating asset recovery should be no larger than needed to provide the shareholders with a return of their investment in Duquesne's generating plant and a reasonable return on that

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[129] Duquesne St. 2-R at 43.

[130] Env. St. 1-S at 1-2.

investment. No one has disputed Mr. Schoengold's testimony that this would occur if only 60% of the generation assets are included in Duquesne's stranded costs. Env. M.B. at 27-28.

(vi) **Recommendation**

The record fails to support the assertion of the intervenors that the Company's nuclear units should be considered "economic excess capacity" if this proceeding were a standard rate case. In no case cited by these parties is there a determination made by this Commission that disallowed the recovery of embedded generation costs on the basis of a comparison of those costs to market price forecasts, which assumed the capacity could be replaced by purchases in the spot market. That assumption is the fatal flaw running throughout these sharing proposals. Taken to its logical conclusion, no stranded costs could ever be recovered under the sharing proposals, let alone a "just and reasonable level," since nearly all of these costs can theoretically be replaced by purchases in the spot market. Moreover, any "sharing" proposal conceptually can be viewed as a "taking" of assets, subject to constitutional due process constraints. Since these results could not possibly have been within the contemplation of this legislation, the Commission should deny any proposal for sharing stranded costs.

(c) **Securitization**

(i) **Duquesne's Position**

Duquesne notes Mr. Kollen (DII) contends that "the Commission should insist that Duquesne utilize the securitization option." DII St. 3 at 35. The statute, however, does not

permit forced securitization, 66 Pa. C.S. §2812 and the Commission did nothing of the kind in PECO Energy, Slip Op. at 101-102, 115. Moreover, in this case, such a requirement would be particularly inappropriate given that: (i) Duquesne has the highest degree of debt leverage of any electric utility in the state, thereby already lowering Duquesne's cost of capital, Duquesne St. 2-R at 52; (ii) Duquesne cannot further reduce its common equity without violating the covenants in the Beaver Valley 2 sale/leaseback agreement, Id. at 53[131]; and (iii) Duquesne's debt cost is below the cost of securitized debt posited by Mr. Kollen. Compare Duquesne Exh. DJC-26 with DII St. 3-S at 27; Duquesne M.B. at 54-55.

(ii) DII's Proposal

Pursuant to Section 2812, the utility may request a qualified rate order ("QRO") for issuance of transition bonds to securitize any or all of its recoverable level of stranded costs. 66 Pa. C.S. §2812. DII urges Duquesne to securitize its authorized level of stranded cost recovery in this proceeding as a final step of mitigation to reduce the amount of stranded costs that must be recovered from ratepayers. The Act specifically recognizes the issuance of securitized debt as a proper mitigation effort by the Company in determining the level of transition or stranded costs that an electric utility may recover through the CTC. 66 Pa. C.S. §2808(c)(4)(vi); DII M.B. at 70.

Securitization of Duquesne's total stranded costs will reduce the amounts to be recovered from ratepayers because the cost of capital used in the stranded cost determination will

[131] Mr. Kollen naively assumes that these agreements can simply be "modif[ied]," apparently at no cost, DII St. 3-S at 28, but this is clearly not the case. Duquesne St. 2-R at 53.

be replaced by the interest rate on the transition bonds, which will be less than the Company's requested cost of capital. DII St. 3 at 34-35. This lower level of stranded cost recovery will result in the ratepayers paying a lower CTC, resulting in immediate rate reductions or a shorter CTC recovery period. Id. at 35; DII M.B. at 70-71.

The Commission previously endorsed securitization as necessary to benefit ratepayer interests during the transition period. The Commission specifically noted PECO's prior request for a qualified rate order under Section 2812 for part of its stranded cost claim as part of PECO's mitigation efforts pursuant to the Act. PECO Restructuring Order, Slip Op. at 98. The Commission also stated that its decision in the PECO proceeding was contingent on continuing efforts by PECO to mitigate stranded costs to be recovered from ratepayers. Such efforts should possibly include further securitization of its debt. Id. at 100-101. To the extent ratepayers may be benefitted by Duquesne pursuing securitization, the Commission should require the same of Duquesne as it has required of PECO. DII M.B. at 71.

Duquesne makes vague claims that securitization is not "economic" from the Company's perspective. See, Duquesne St. 2-R at 52-54. However, the Company admits that no detailed studies exist to support that claim. N.T. at 242; Exh. DJC-26. DII requests the PUC to encourage Duquesne to securitize all or a portion of its stranded costs to fully mitigate stranded cost levels under the Act. DII M.B. at 71.

It is clearly within the Commission's power, under its duty to ensure that the level of rates recovered from ratepayers are just and reasonable, to urge the utility to pursue securitization. In addition, the Commission can consider securitization as part of its evaluation of the Duquesne mitigation efforts. As stated in the PECO decision, evaluation of the utility's

stranded cost claim and recovery is an ongoing process that is contingent on the utility's attempt to fully mitigate the effect that stranded costs will have on ratepayers. PECO Restructuring Order, Slip Op. at 101. PECO appears willing to securitize at least a portion of its stranded costs. Id. at 98. The Commission should demand no less of Duquesne with respect to securitization than it has demanded of PECO on the same issue. DII M.B. at 71.

DII notes Duquesne takes issue with the DII proposal that the Company use securitization as a final mitigation effort to minimize the stranded costs to be recovered from ratepayers. Duquesne M.B. at 55-56. Although DII acknowledges that the statute does not permit the Commission to force Duquesne to securitize debt, a consideration of securitization by the Commission is clearly part of its duty to ensure just and reasonable rates under the Act. 66 Pa. C.S. §§1301, 2804(13) & 2804(14). During the transition period, Duquesne has the duty to mitigate generation-related stranded costs to the extent practicable. 66 Pa. C.S. §2808(4). The Act specifically recognizes the issuance of securitized debt as a possible avenue of mitigation of those generation-related stranded costs. Id. §2808(4)(vi). Securitization reduces the amount that ratepayers must compensate Duquesne for its proven stranded costs. DII M.B. at 70-71. Duquesne admits that no detailed studies exist regarding the viability or necessity of securitizing its debt. N.T. at 242; Exh. DJC-26. Duquesne should perform such studies to ensure that stranded cost recovery from ratepayers is minimized. DII respectfully requests that the PUC encourage Duquesne to securitize all or a portion of its stranded costs to fully mitigate stranded costs. See, DII M.B. at 70-71; DII R.B. at 36.

(iii) Recommendation

While posed in the guise of "encouragement," the DII's proposal still amounts to coercion proscribed by Section 2812 of the Act. Furthermore, the unrebutted evidence discloses Duquesne has the highest degree of debt leverage of any electric utility in the state, thereby already lowering its cost of capital. The Company cannot further reduce its common equity without violating the covenants in the Beaver Valley 2 sale/leaseback agreement. For these reasons, I recommend rejection of the DII's securitization proposal.

2. Methods of Stranded Cost Recovery

(a) Accellerated Amortization

(i) Duquesne's Proposal

Duquesne has proposed to set CTCs pursuant to Section 2804(4)(v); the OCA objects to this method because it does not produce immediate rate reductions. OCA St. 1 at 13. The OCA's argument cannot be accepted because Section 2804(4)(v) is written in proscriptive terms: it states that a utility "shall not" be required to reduce its rates upon the complaint of any party. 66 Pa.C.S. §2804(4)(v).[132] Consequently, the only real issue is whether Duquesne's proposal for implementing Section 2804(4)(v) requires modification. On that issue, the only real dispute relates to the "ROE spillover" proposal.[133] The ROE spillover proposal is the

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[132] PECO did not propose to use Section 2804(4)(v) and hence it was not at issue in that case.

[133] Notably, no party takes serious issue with Duquesne's commitment to amortize a minimum of $1.7 billion over the transition period, Duquesne St. 2 at 39-40, Duquesne Exh. DJC-6; this proposal provides ratepayers a guarantee that Duquesne will achieve the aggressive (continued...)

mechanism by which any "excess earnings" are used to accelerate the amortization of stranded costs, as required by Section 2804(4)(v). Duquesne St. 2 at 40-44; Duquesne St. 2-R at 3-8. The proposal benefits consumers because it ensures that any excess earnings are "spilled over" to reduce stranded costs, but there is no guarantee that Duquesne will actually earn its required return. Duquesne St. 1 at 5; Duquesne M.B. at 56-57.

There are two general criticisms of this proposal. The first is that the ROE spillover is set too high - i.e., that the ROE (11.5%) used to set earnings should be lower. OCA St. 1 at 12; OCA St. 1-S at 6. But this is simply a dispute over what is a fair return on common equity, a matter discussed infra, not a criticism of Duquesne's plan to implement Section 2804(4)(v). The second is that the Company can "hide" excess earnings through devious accounting schemes, thereby circumventing the protective effect of the ROE spillover. OCA St. 1 at 12; OCA St. 1-S at 6; HSS St. 1 at 138. This is a cloud of dust. To ensure that Duquesne's earnings can be monitored, Duquesne has committed to file with the Commission the same reports it has filed historically to report its earnings and, in addition, to provide further information, if necessary, to "police" the process. N.T. 208-214, 359. Given these commitments, the suggestion that the Commission cannot, as it has for more than a half century, monitor the earnings of an electric utility is meritless. Tellingly, the OCA and HSS have failed to offer any modifications to strengthen these consumer protections; the reason is that the OCA and HSS dislike Section 2804(4)(v) itself, which does not guarantee their constituents immediate

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(...continued)
cost reduction and containment projections contained in its case-in-chief. Duquesne St. 1 at 5.

rate cuts. OCA St. 1 at 15-16; HSS St. 1 at 77-81. That, however, is a dispute with the General Assembly, not Duquesne. Duquesne M.B. at 57-58.

(ii) The OTS' Position

OTS previously addressed the Company's ROE spillover proposal, supra. As indicated therein, OTS does not oppose the Company's ROE spillover proposal, with one exception. For the reasons stated, infra, Mr. Jeschke's 10.50% ROE should be substituted for Duquesne's 11.5% ROE in the Company's ROE spill over proposal. OTS M.B. at 49.

(iii) The OCA's Position

The OCA believes that the Company's approach of maintaining its rates at current levels subject to a future final valuation and subject to the ROE spillover is inconsistent with the law and unwise in that it will (i) unnecessarily postpone the determination of the CTC resulting in uncertainty to ratepayers, (ii) likely require the establishment of a false proxy for the market price, (iii) deny ratepayers the benefits of any near-term rate savings, (iv) remove incentives to mitigate stranded costs, and (v) would require substantial regulatory oversight that is inconsistent with the objectives of the Act. OCA M.B. at 61.

It is important to recognize that, even if the Company's interpretation of Section 2804(4)(v) is accepted, that Section does not suggest the postponement of the Commission's decision with respect to the appropriate level of stranded costs. Thus, assuming the Commission determines stranded costs in this proceeding, the Commission must be satisfied that leaving rates at current levels will not produce excess earnings during the CTC recovery period or windfall

profits for the Company at ratepayer expense in the competitive market. OCA submits that this is not possible given OCA's valuation of stranded costs, which indicates that rates would have to be reduced by 18% over the CTC recovery period to avoid that windfall. See, OCA St. 4-S, Exh. LS-9 (Revised LS-5). Moreover, even under the Company's own analysis, when factors such as merger savings and life extension of plants are considered – which the Company has recognized need to be taken into account – the Company's position that it will not have excess earnings does not appear probable. OCA St. 1 at 10-11; OCA M.B. at 61-62.

Thus, the Company's stranded cost recovery proposal is entirely dependent on the Commission's adoption of the Company's final valuation proposal and everything which it entails, including the proposed ROE spillover mechanism. Given the numerous problems raised with that proposal, OCA submits that it should be plainly rejected in favor of a current valuation of stranded costs and an adjustment to rates in this proceeding. Id. at 62.

The OCA submits the Company has misinterpreted Section 2804(4)(v) to prohibit reductions in rates under certain circumstances. The Company argues the criticisms of the Company's ROE spillover proposal, by which it flows excess earnings back to ratepayers, are without merit. Duquesne M.B. at 57-58; OCA R.B. at 20-21.

Duquesne argues that concerns that the Company can "hide" excess earnings through "devious accounting schemes, thereby circumventing the protective effect of the ROE spillover" are a "cloud of dust." Id. at 57. Duquesne argues that it has agreed to file the same earnings reports that it has filed historically with the Commission and to provide further information, if necessary, to "police" the process. Id. at 57-58. Duquesne significantly understates the administrative burden required to perform this review and afford parties due

process. As the Commission well knows, utility earnings reports have not, to date, been used for the purpose of establishing rates and are certainly not reviewed with the type of detail that is typically used in a rate review. Since the ROE spillover will directly affect rates, there should be no question that parties will want to, and need to, evaluate the Company's claims and adjust the Company's claims if deemed appropriate. As discussed in OCA's Main Brief, this will create annual rate proceedings for the review of the Company's ROE spillover filings. See OCA M.B. at 19. Further, this process would be complicated by the Company's performance in the competitive generation market, which would directly impact on its earnings. For the reasons set forth in OCA's Main Brief, this entire proposal should be rejected. OCA R.B. at 21.

(iii) The City's Position

The City argues Duquesne's ROE spillover mechanism fails to provide Duquesne with an incentive to reduce costs or mitigate stranded costs. The spillover fund can be manipulated so that earnings can be used to fund items associated with unregulated market transactions. For instance, Duquesne could increase its capital expenditures before the end of the transition period so that reduced expenditures would be needed after the transition period is over when Duquesne is forced to compete. It could also use earnings to build market share by selling power below market prices. Duquesne could use funds to defray avoidable costs without the necessity to justify it. Plain and simple, Duquesne's ROE spillover proposal impedes the development of competition. City M.B. at 19.

Duquesne has not attempted to rebut the testimony evidencing that its mechanism is a sham devised for Duquesne's benefit and that such a mechanism will minimize the financial

risks to its shareholders at the expense of Duquesne ratepayers. Duquesne's proposed revision eliminating the 1/2% collar (the collar was a neat trick that guaranteed its shareholders a 12% ROE) does not solve the numerous problems with this mechanism. Id.

(iv) **HSS/ARI's Position**

HSS/ARI note Duquesne claims an entitlement to the rate floor protection of Section 2804(4)(v) of the Act based upon its proposal to accelerate depreciation and amortization of its generation assets by $1.7 billion through 2005, ostensibly for the purpose of mitigating stranded costs. However, as HSS/ARI has demonstrated above, Duquesne has no stranded costs to mitigate. As a consequence, Duquesne has no right to accelerate amortization and depreciation, and as will be discussed in Section F3(b), below, by doing so, it only would provide an artificial and improper basis to prop up its cost of service to support exorbitant rates that are not just and reasonable. Accordingly, the Commission should reject Duquesne's request to accelerate amortization and depreciation because the statutory basis for authorizing such acceleration is absent in this case. HSS/ARI M.B. at 79-80.

However, if the Commission does allow Duquesne to accelerate amortization and depreciation by any amount, the Commission should reject Duquesne's proposed "ROE spillover mechanism." Alternatively, the mechanism should be modified to prohibit Duquesne from using the mechanism to supplement earnings. HSS/ARI M.B. at 80.

As Dr. Weisenmiller explained in his testimony, the ROE spillover mechanism is a sham. HSS/ARI St. 1 at 137. Under the proposal, as Duquesne modified it in its rebuttal testimony, if Duquesne achieves earnings in excess of 11.5%, it will set up a deferred revenue

account and will record the excess earnings to the account. Duquesne St. 2 at 42; N.T. 243. However, once the deferred revenue account is established, if Duquesne's earnings fall below 11.5%, Duquesne will debit the account to boost its earnings back up to 11.5%. N.T. 244. The mechanism is subject to substantial abuse. HSS/ARI M.B. at 80.

For instance, Duquesne did not make any representation that it would not use write-downs to offset earnings. If it did record such write-downs, it artificially could depress its net earnings, but then boost them back up by taking funds out of the deferred revenue account to get Duquesne its guaranteed 11.5% ROE. HSS/ARI St. 1 at 138. Thus, as Dr. Weisenmiller pointed out, the ROE spillover not only does not protect ratepayers, Duquesne actually could use the ROE spillover to exacerbate ratepayers' liabilities to fund Duquesne's non-existent stranded costs. Id. at 138. As a result, the Commission should reject Duquesne's proposed ROE spillover mechanism or modify it to prohibit Duquesne from using the mechanism to supplement earnings. HSS/ARI St. 1-S at 11; HSS/ARI M.B. at 80-81.

(v) Recommendation

Duquesne has committed to set CTCs pursuant to Section 2804(4)(v),. 66 Pa. C.S. §2804(4)(v), which provides:

> If an electric distribution utility rolls its energy cost rate into base rates at a combined level that does not exceed its combined level of such rates which have been approved by the [C]ommission as of the effective date of this chapter, the utility shall not be required to reduce its capped rates below the capped level upon the complaint of any party if the [C]ommission determines that any excess earnings achieved under the cap are being utilized to mitigate transition or stranded costs for the benefit of ratepayers or to offset other known and measurable cost

increases that would be recoverable under traditional ratemaking but are not included within the capped rates.

The Company's proposal appears to track the exact language of the statute. Further discussion relating to the appropriate level to set the ROE spill-over mechanism ensues, infra. To ensure "excess earnings" will be used to accelerate the amortization of stranded costs, Duquesne should be directed to file annual earnings reports in sufficient detail to permit the Commission to monitor the amortization process. For these reasons, I urge the Commission to accept the Company's proposal for accelerated amortization under Section 2804(4)(v) with the ROE spill-over mechanism set at the level discussed, infra.

(b) Immediate Rate Reductions

(i) Duquesne's Position

Duquesne posits the OCA proposal for immediate rate reductions conflicts with Section 2804(4)(v) and therefore cannot be approved. Duquesne M.B. at 58.

(ii) The OCA's Proposal

The OCA proposes the establishment of a specific CTC, specific T&D rates, and a specific market price of generation (avoidable generation component). Ratepayers who remain with Duquesne should only be required to pay the sum of these components. OCA submits that if the sum of these components produces a rate below the current rate, customers should realize a rate reduction. OCA M.B. at 62.

There is one difference between the Commission's approach in its Order in the PECO case and that recommended by OCA in this proceeding. In the PECO case, customers

can receive rate reductions only if they select an alternate supplier and that supplier's charges are less than the shopping credit provided by PECO. In contrast, under OCA's proposal in this case, all customers will receive a rate reduction and alternate suppliers will have to compete based upon their ability to provide favorably priced electric generation when compared to the generation price reflected in the Company's rates. OCA M.B. at 62.

OCA respectfully submits that the approach taken in the PECO case should, thus, be modified in this case. There are a number of reasons that this should be done. First, and perhaps most important, is that all customers will benefit from the OCA approach, not just those who leave Duquesne's generation service. Moreover, Section 2807(e)(3) of the Act makes clear that after the phase-in period ending no later than on January 1, 2001, customers who do not choose are to be served by the utility or a commission-approved alternative supplier at "prevailing market prices," subject to the rate caps established in Section 2804. 66 Pa. C.S. §2807(e)(3). Certainly, the Commission should not provide an incentive to competition which will suddenly disappear two years after the beginning of competition. OCA M.B. at 62-63.

In light of the above, the most reasonable approach in this case is to implement the approach set forth by OCA, supra. OCA's specific proposal in this respect is set forth, infra. Id.

The Company argues that OCA's proposal for immediate rate reductions conflicts with Section 2804(4)(v). OCA submits that this is simply not the case and that rate reductions are necessary to implement the statutory intent. OCA M.B. at 62-63. Enron also opposes rate reductions and submits that the amount by which rates could otherwise be reduced be used as an additional "shopping credit," i.e., an addition to the CGC. As discussed below in connection

with the CGC, this approach unfairly deprives customers who decide not to shop, or who cannot shop, of a rate decrease that should benefit all customers. OCA R.B. at 21.

(iii) DII's Position

DII urges the Commission to reject the OCA proposal for immediate rate reductions because it unreasonably extends the transition period and delays attainment of full competition. As discussed, infra, the goal of the Act is to transition as quickly as possible. In addition, the OCA proposal is predicted on a CTC methodology that violates the rate cap for some customers (e.g., Interruptible Customers) in order to give reductions to other customers (e.g., Residual Customers). See, DII M.B. at 75-78 & 80-83. This result is clearly not intended by the Act. 66 Pa. C.S. §2802(7); DII R.B. at 36-37.

(iv) HSS/ARI's Position

HSS/ARI assert, based on the evidence in this case, the Commission should order an immediate reduction of Duquesne's rates. The basis for that reduction is that Duquesne's current rates (which it proposes to maintain) are not cost-justified and therefore are not just and reasonable. HSS/ARI M.B. at 81.

Again, the starting point for this analysis logically must start with another consideration of the historic costs that Duquesne would include in determining its rates but which never have been shown to be just and reasonable. As has been discussed previously, Duquesne has chosen not to file a rate case since 1986, and Duquesne presented no evidence in this case to establish that its expenditures over that ten-year period were just and reasonable. As a result,

the Commission should order a 50% disallowance of the approximately $382 million in generation-related capital expenditures Duquesne has made since 1986. Id.

There also is an independent problem that arises directly from Duquesne's rate proposal. As can be seen in Duquesne's cost of service study, Duquesne would adjust its generation-related 1996 test year results to reduce Total Power Production Expenses by approximately $21 million. Exh. MKO-1B at 2. Duquesne explains by reference to footnote 12 on the preceding page that the $21 million cost reduction largely relates to Duquesne's sale of its interest in Ft. Martin. However, as can be seen on page 3 of the same exhibit, Exh. MKO-1B at 3, Duquesne is proposing to increase its depreciation expense by $25 million, again because of the Ft. Martin sale, N.T. 615-616, thus, more than offsetting the entire cost reduction and alleged benefit that Duquesne claims its ratepayers received from the sale. However, to add insult to injury, as can be seen on the same page at line 405, Duquesne's proposal to amortize transition costs would increase its 1996 test year cost of service in the amount of $84 million. N.T. 616-617. As can be seen on the last line on Exhibit MKO-1B, page 3, the net effect of Duquesne's proposal, thus, is to increase its cost of service by $62 million rather than reducing that cost of service by $22 million as would occur with rejection of Duquesne's proposal to accelerate amortization and depreciation. N.T. 617. As a result, the Commission should reject Duquesne's request to accelerate amortization and depreciation and require Duquesne to calculate its rates based upon the reduced cost of service that would result from the reduced generation and distribution rate based upon the adjustments discussed herein. Such a reduction is necessary if Duquesne is to be precluded from earning the inflated returns on equity that it has forecast it will earn. See, supra at 14; See, also, HSS/ARI St. 1 at 78; HSS/ARI M.B. at 81-82.

(v) The PRA's Position

The PRA agrees the OCA is correct from a conceptual standpoint that immediate rate reductions are necessary in the Duquesne service territory. Commercial customers in Duquesne's service territory have far too long paid exorbitant rates for electric service. Indeed, as this proceeding strikingly reveals, many of Duquesne's plants are uneconomic and customers have, for years, subsidized those inefficient plants. The Legislature enacted the Act to achieve cost savings in customers electricity costs or, at a minimum, to provide an opportunity for immediate rate relief. To assume otherwise is folly. Thus, from a conceptual standpoint, any stranded cost recovery method selected by the Commission must reflect this fact. PRA M.B. at 66-67.

(vi) Recommendation

Because the OCA's proposal for immediate rate reductions entails extension of the transition period, I urge the Commission to reject it. In my opinion, the most satisfactory way to achieve rate relief for Duquesne's beleaguered customers is to move as quickly as possible to a fully competitive electric generation market. During the transition, ratepayers will continue to shoulder only the burden of rates capped at their present levels – no more or no less. In order to assure ratepayers the transition period will end as quickly as possible, I recommend, supra, the immediate divestiture of Duquesne's generating assets as the Company proposes in the event the merger is not consummated. If a merger is achieved, then I recommend, supra, the methodology the OCA proposes for determining the Company's stranded costs since that approach appears the most reasonable, and substantial evidence supports it. Moreover, that

approach will allow the Commission to establish Duquesne's stranded costs in this proceeding at this time so the clock can begin ticking to bring the transition period quickly to an end without further delay. For these reasons, the Commission should reject any proposal to extend that transition period.

(c) **Rate Cap/CTC Extension**

(i) **Duquesne's Position**

The Company takes no position on this issue. Duquesne M.B. at 58.

(ii) **The OTS' Proposal**

The OTS addresses the rate cap/CTC extension topic, supra. As indicated therein, OTS proposes that the rate cap under 66 Pa. C.S. §2804(4) and CTC collection period be extended if the final valuation in 2003 determines a stranded cost level which would produce "rate shock." It apparently is the Company's intention to begin collecting stranded costs determined by the panel, pursuant to the 2003 valuation, on January 1, 2004, and to collect these costs over the two remaining transition years. If the valuation results in stranded costs which exceed the upper level of Duquesne's projections (approximately $423 million), then Mr. Metro recommends that the CTC and rate cap period be extended for whatever time is necessary to recover the additional stranded costs at the then current recovery rate. OTS St. No. 4 at 13-14; Duquesne Exh. DJC-3 (Revised) at 1; Duquesne St. 2 at 11; OTS M.B. at 49-50.

The Competition Act specifically permits extensions to the CTC collection period, if ordered by the Commission, for good cause shown. 66 Pa. C.S. §2808(b). Duquesne has

filed no testimony in opposition to OTS' rate cap/CTC extension proposal. Accordingly, this modification should be granted. OTS M.B. at 50; OTS R.B. at 11-12.

(iii) DII's Position

DII finds Duquesne acknowledges that under its delayed valuation method for determining stranded costs, the Company may need an extension of CTC recovery period in order to fully recover stranded cost revenues that the Commission authorizes. Duquesne St. 2 at 41. Duquesne proposes to make this determination based on a CTC revenue analysis after the final delayed market valuation. Id. Duquesne seeks to extend or shorten the CTC collection period accordingly. Id. Although DII generally assents to the concept that the collection period be extended, its agreement is subject to certain conditions. DII M.B. at 72.

As a preliminary matter, DII notes that the Company's perceived need for an extension of the recovery period is created, in large part, by the Company's proposals to delay the market valuation of its assets and to have a variable CTC. DII's analysis, on the other hand, establishes a definitive level of stranded costs to be recovered and a fixed schedule of CTCs; DII submits, with a high degree of certainty, that if the DII recommendations are adopted (and Duquesne's sales remain comparable), Duquesne will fully recover its allowed stranded cost by 2002. DII St. 1 at 35, Exh. SJB-5. This is the level of certainty with respect to stranded cost responsibility that should be given to the ratepayers and competitors in Duquesne's service territory. DII St. 1 at 23-26; DII M.B. at 72.

DII does not necessarily object to the concept of extending the CTC collection period. However, the mere possibility of under-collection is not sufficient to warrant an

automatic extension of the CTC recovery period. DII St. 1 at 32. If such under-collection is present at the end of the statutory CTC recovery period, the Company should present evidence of the under-collection to the Commission and seek approval for an extension. Id. The DII position represents a reasonable compromise between the needs of Duquesne to the allowed level of stranded costs and for other market participants to ensure that the transition period is not unreasonably extended. See, 66 Pa. C.S. §2802(8); DII M.B. at 72-72.

In addition, DII's assent to the concept of CTC extension is contingent on a concurrent extension of the rate cap pursuant to Section 2804, 66 Pa. C.S. § 2804(4). DII St. 1 at 32. The rationale for including a rate cap in the Act was to protect the consumers who were held captive to the payment of a CTC. Id. The concerns that lead to adoption of the rate cap will be present if the CTC recovery period is extended and the consumers remain captive to the payment of a CTC. Not extending the rate cap would inappropriately benefit Duquesne without a correlating benefit to ratepayers in violation of Section 2802(8) of the Act, 66 Pa. C.S. §2802(8); DII M.B. at 73.

An unconditional extension of the CTC recovery period should not be granted in this proceeding. If Duquesne experiences an under-collection of its allowed stranded costs, Duquesne should present evidence of that under-collection to the Commission. That request should not be granted until the Company makes a sufficient showing. In addition, any extension of the CTC recovery period must be accompanied by a concurrent extension of the generation rate cap. Extension of CTC recovery without a concomitant extension of rate cap is inequitable and violative of the Act. DII respectfully requests that Duquesne's premature request for rate cap extension be denied, without prejudice. DII M.B. at 73; DII R.B. at 37.

(iv) The PRA's Position

The PRA posits the mere possibility of an undercollection of stranded costs is not a sufficient basis to now order an extension of the CTC. The statute provides for an annual reconciliation designed to insulate Duquesne from sales variations. Thus, the Act solely contemplates a catastrophic loss of load such that the CTC must be increased enormously to permit Duquesne 100% recovery of its Commission determined level of stranded costs. PRA R.B. at 23.

(v) The Environmentalists

The Act provides for the CTC collection period to end on December 31, 2005,[134] Since the CTC charge is a stone around the necks of ratepayers and a distortion of the true competitive market, it should be with us no longer than necessary. As David Schoengold testified:

> The purpose of the Competition Act is to bring the benefits of competition - reduced costs - to customers. Customers will receive no such benefits as long as the CTC is in place, since the CTC essentially negates any of the benefits of competition.[135]

Duquesne proposes CTC collection to end on December 31, 2005, and is not requesting that the statutory period be extended. Because Duquesne is not proposing any rate relief for its customers during the CTC collection period, it is especially important that the CTC collection not be extended. Env. M.B. at 28.

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[134] 66 Pa. C.S. §2808(b). A longer recovery period is permitted for "good cause."
[135] Env. St. 1 at 14.

(vi) Recommendation

The foregoing recommendations render this proposal for rate cap/CTC extension unnecessary. Therefore, the Commission need take no action on this subject.

3. Other Arguments Regarding Recovery of Stranded Costs

(a) Duquesne's Position

The Company notes the only other position that requires attention here is that of Mr. Hughes. Mr. Hughes makes one basic point: that Duquesne's nuclear units are not economic and, as a result, Duquesne should not be permitted to fully recover their costs. DH St. 1. The result sought by Mr. Hughes, however, suffers from the same flaws as the "sharing" proposals discussed above: it bears no relation to Duquesne's mitigation efforts or opportunities and does not meet the standards set forth in Duquesne. In addition, as discussed by Messrs. Clayton and Duckworth, many of Mr. Hughes's factual claims are either in error or are attempts to rehash matters previously raised, and decided, in Duquesne's last rate case. Duquesne St. 2-R at 56-57; Duquesne St. 11-R at 1-10; Duquesne M.B. at 58-59.

The Company suggests Mr. Hughes rests his claim for rate reductions (and refunds) on the surrebuttal testimony of Mr. Biewald, who purported to compare the costs of Duquesne's nuclear generation to the cost of market purchases over the past ten years, as well as for the remaining lives of the assets. Env. St. 2-S. However, Mr. Biewald's analysis cannot be relied upon for four reasons. First, Mr. Biewald himself did not regard his calculations as a "rigorous, independent analysis"; rather, he characterized them as a "first cut" derived from "materials at hand, and a number of approximations." Env. St. 2-S at 3-4. Second, he

compared apples to oranges: the sunk costs of Duquesne's nuclear units to the (supposed) incremental cost of purchasing power from the market. Env. Exh. BEB-5; N.T. 386-87. Third, Mr. Biewald's prices for the expected cost of alternatives were "seriously understated." N.T. 387.[136] Fourth, his analysis conflicted with PP&L, where the Commission found it inappropriate to base an economic excess capacity adjustment (which is essentially what Mr. Hughes seeks, Hughes St. 1-S) on the estimated cost of "market purchases." PP&L, 1995 Pa. PUC LEXIS 189, *19. For all these reasons, Mr. Biewald's analysis should be rejected as flawed, unreliable and in conflict with PP&L.[137] Duquesne R.B. at 14-15.

(b) The City's Position

The City argues Duquesne's methodology impairs the formation of a competitive market, the very goal of the Act. Under Duquesne's plan, it will be very difficult for new suppliers to meaningfully compete for market share. City M.B. at 19-20.

In a properly functioning competitive market, decisions on whether to supply power are based on avoidable costs. Under Duquesne's plan, supply decisions have nothing to do with avoidable costs and everything to do with overrecovery of stranded costs. For instance,

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[136] It is thus not correct to assert that Mr. Schnitzer "did not criticize any of Mr. Biewald's specific assumptions or calculations." Hughes M.B. at 4.

[137] Duquesne previously addressed, M.B. at 58-59, Mr. Hughes' request for rate reductions. We add here that his new request for retroactive rate refunds to 1990, Hughes M.B. at 6, is barred because: (i) it was never raised in testimony (rather, in testimony he only requested "a refund to customers retroactive to June 1994," Hughes St. 1 at 10), (ii) Section 2804(4)(v) does not permit rate reductions, much less retroactive rate refunds, and (iii) retroactive refunds would violate the Commission-made rate doctrine. Cheltenham & Abington Sewerage Co. v. Pennsylvania Pub. Util. Comm'n, 344 Pa. 366, 25 A.2d 334 (1942).

using Duquesne's own forecasts, Duquesne should shutdown its Elrama plant since Elrama's avoidable costs will exceed revenues from sales by $215 million. Instead, Duquesne's plan is to operate this plant to the detriment of ratepayers. Id. at 20.

(c) **David Hughes' Position**

Mr. Hughes, a Duquesne ratepayer, believes the Commission should make a determination as to whether Duquesne's current rates are just and reasonable before it makes decisions with regard to prospective issues such as stranded cost recovery. Accordingly, he filed a formal complaint on June 14, 1994 at Docket No. C-00945953, requesting the Commission conduct an investigation to determine whether Duquesne's current rates are just and reasonable. On September 19, 1996, the Commission granted a stay in that proceeding, stating that the instant restructuring proceeding would be the "appropriate forum" for the Commission to investigate my complaint issues. Accordingly, Mr. Hughes submitted direct and surrebuttal testimony in this restructuring proceeding, and a brief. Hughes M.B. at 1.

(i) Duquesne's current rates are unjust and unreasonable.

Mr Hughes contends Duquesne's current rates are unjust and unreasonable as a result of the failure of the Perry 1 and generating units to provide an economic benefit to ratepayers. The high cost of these units has precluded Duquesne from giving its customers rate reductions. Perry 1 and Beaver Valley 2 fail to meet the useful side of the used and useful test. Id. at 2.

Duquesne's rates were set by the Commission in March 1988. In that rate base case, the Commission found that Duquesne had failed to meet its burden of proof that Perry 1 and Beaver Valley 2 did not represent economic excess capacity on the Company's system; and the Commission made a relatively small excess capacity adjustment for this at the time. Duquesne has admitted (Clayton Rebuttal Testimony at 57) that these adjustments did not cost the Company. However, the decision to rate base Perry 1 and Beaver Valley 2 has resulted in enormous costs to ratepayers. The rate base decision was based on projections of how these units would perform. We now have ten years of operation and it is clear that Perry 1 and Beaver Valley 2 have not provided, and most likely will never provide, an economic benefit (energy savings) to ratepayers. Id. at 2.

In his formal complaint testimony, Hughes Exhibit DH-4, Mr. Hughes detailed how the Perry Plant was particularly expensive and in Exhibit DH-5, how Duquesne itself admitted that this unit was a "financial drain" on the Company. Duquesne chose not to rebut the complaint testimony. Mr. Duckworth attempted to do that in the instant proceeding, but Mr. Hughes states in surrebuttal testimony (pp 6-8), there were serious flaws in his rebuttal. Mr. Duckworth chose not to offer a rejoinder to Mr. Hughes' surrebuttal and admitted, N.T. 687, Perry has "caused Duquesne to spend unanticipated expenditures." Mr. Hughes focused on Perry only to show how the investment in nuclear generation has failed. However, the Commission's Order in the complaint case stated (p. 7) that rather than examining the economics of one generating unit, the Commission would prefer to evaluate all the units on the Duquesne system within the restructuring proceeding. Following the Commission's Order, Mr. Hughes intervened in the instant proceeding and presented testimony with regard to the units that

make up the bulk of Duquesne's stranded costs, including Perry 1, Beaver Valley 2, Brunot and Phillips stations. Hughes M.B. at 2-3.

The questions that must be addressed in this proceeding are: Are these units used and useful? Do they provide an economic benefit to rate payers? Do Perry 1 and Beaver Valley 2 costs preclude Duquesne from giving rate reductions? The answer to all of these questions is yes. The Company has not rebutted Mr. Hughes' contention that Perry 1 and Beaver Valley 2 are uneconomical; that the units fail to provide an economic benefit to rate payers. Indeed, under cross examination, Mr. Marshall, N.T. 113-11, and Mr. Clayton, N.T. 287-293, have stated that Duquesne does not make an analysis of the economics of a generating unit based on whether the unit provides energy savings to ratepayers, but rather on the basis of whether, on a "to go" basis, it would be cheaper to operate the unit or shut it down. This method of economic analysis ignores one important factor: sunk costs. Hughes M.B. at 3.

Mr. Biewald's surrebuttal testimony in this case included an economic analysis, Env. St. 2-S, Exhibits 5, 6 and 7, of Duquesne's shares of Perry 1 and Beaver Valley 2. Mr. Biewald concluded (page 4) that for Perry 1, the cumulative losses amount to approximately $2.0 billion (1997$) and for Beaver Valley 2, the cumulative losses total approximately $1.0 billion (1997$). Hughes M.B. at 3-4.

There was only one challenge to Mr. Biewald's analysis in the entire record of this case, and that was by Mr. Schnitzer in his oral rejoinder testimony. Mr. Schnitzer did not criticize any of Mr. Biewald's specific assumptions or calculations. Rather, Mr. Schnitzer merely pointed out that in his opinion, once a unit has already been constructed, an economic analysis of the unit should include only "avoidable costs." N.T. 386. On cross-examination,

Mr. Schnitzer explained that "the only way I know to reasonably interpret that question: 'Are Perry 1 and Beaver Valley 2 economically useful?', is to ask, given that the plants do exist, on an economic basis, does it make sense to continue to operate them or not." N.T. 499. Mr. Schnitzer's lack of imagination would apparently rule construction costs out of any economic analysis. Hughes M.B. at 4.

For Perry 1 and Beaver Valley 2, the exorbitant construction costs were the root of the economic problem. If one is deciding whether or not a generating unit should continue to be operated, then it would be appropriate to exclude construction costs from the analysis since they are "sunk" and, therefore, unavoidable. On the other hand, if one seeks to determine whether a generating unit is "economically useful," then it is important to include all of the costs. This latter question is the one that concerns us here. That is, "What are the economic costs and benefits associated with these units, and how do the costs and benefits compare?" Mr. Biewald's analysis speaks directly to these questions, and he finds that the costs greatly exceed the benefits, yielding net losses of $2 billion and $1 billion for Perry 1 and Beaver Valley 2, respectively. Mr. Biewald did not conclude that the nuclear units should be shut down. He did not analyze that question. He did conclude that the Company's involvement in these units, including Duquesne's share of the construction costs, has been an economic disaster. In this situation, it is appropriate to protect customers from bearing the full burden of the economic losses. Indeed, the Commission has an obligation to share such losses between consumers and shareholders. Rates that put all of the economic losses upon customers are not just and reasonable. Hughes M.B. at 4-5.

If Duquesne volunteered to remove the construction costs from rates, then they could be excluded from the economic analysis. As long as the Company requests that customers pay the carrying costs or (in the case of Beaver Valley 2) lease payments associated with the construction costs, then these costs should, indeed must, be included in the economic analysis. This is what Mr. Biewald has done. Mr. Schnitzer's testimony (rejoinder and cross-examination) indicates that he fails to understand the purpose of Mr. Biewald's economic analysis. If Mr. Schnitzer's understanding of the purpose of the analysis were correct - that Mr. Biewald was attempting to determine whether the units should continue operating - then his criticism would be valid. In fact, this was not the purpose of Mr. Biewald's analysis, thus, Mr. Schnitzer's criticism is erroneous. Hughes M.B. at 5.

Mr. Schnitzer states in his rebuttal testimony at 37: "I fail to see how Duquesne's rates can be just and reasonable today based on prudently incurred costs and magically be unjust and unreasonable the next day based on the same prudently incurred costs." Obviously, Mr. Schnitzer does not understand Pennsylvania utility regulations. The Commission has the authority to make a determination, at any time, as to the justness and reasonableness of a company's rates.[138] This is particularly the case when new information is available and justifies a Commission investigation. A generating unit that is used and useful today could become not used or not useful tomorrow. Indeed, that is the crux of Mr. Hughes' argument. The analysis Mr. Biewald has done is based on information the Commission did not have when it last looked

[138] ALJ Orders in Docket No. C-00945953, December 21, 1994 at 5 and April 10, 1996 at 5-6; 66 Pa. PUC Sections 1311 & 1323(c); PA PUC v. West Penn Power Co. 63a PUC 295, 303 (1987); PA PUC v. Philadelphia Electric Co., Docket No. M-00880183 (1988).

(1987) at the economics of these units. We now have new information, i.e., ten years of operation. Despite Messrs. Marshall's, Clayton's and Schnitzer's constant references to the prudence of these investments, these "prudently" incurred costs are not used and useful. The two standards are not related. Mr. Schnitzer does recognize, however, that these investments were "economically unsuccessful."[139] Hughes M.B. at 5-6.

Thus, Mr. Hughes contends: Perry 1 and Beaver Valley 2 are uneconomical and have precluded Duquesne from giving customers rate relief. Ratepayers should be refunded for all the charges they have paid for these uneconomic plants since 1990. 66 Pa. C.S. §1312 gives the Commission "the power and authority to make an order requiring the public utility to refund the amount of excess paid . . . within four years prior to the date of the filing of the complaint, together with interest at the legal rate from the date of each such excessive payment." Hughes M.B. at 6.

(ii) Duquesne's nuclear units should not be included in the Commission's calculation of the Company's stranded costs.

Mr. Hughes suggests the Commission's task in determining appropriate stranded cost recovery has two parts. First, the Commission must calculate what it believes the Company's stranded costs to actually be. Then, the Commission must decide how much of those stranded costs are just and reasonable to recover. Mr Hughes does not believe the Commission should include the cost of Perry 1 and Beaver Valley 2 in its calculation of the Company's stranded costs. Section 2803 of the Competition Act states that stranded or transition costs are

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[139] Schnitzer Rebuttal Testimony at 41.

costs "which traditionally would be recoverable under a regulated environment." Had the Commission done as he requested, and investigated the just and reasonableness of Duguesne's rates in 1993 and 1994, the Commission would have found that the Company's rates were not just and reasonable as a result of the fact that Perry 1 and Beaver Valley 2 did not meet the "useful" part of the excess capacity standard. The cost of Perry 1 and Beaver Valley 2 would, then, not be recoverable under a regulated environment. This is what he asked the Commission to do in his complaint case and the Commission said the instant proceeding is the appropriate place to make this determination. So again, Mr. Hughes requests that the Commission make a determination in the instant proceeding as to whether Duquense's current rates are just and reasonable. Hughes M.B. at 7.

To summarize: the evidence submitted in this proceeding has shown that Perry 1 and Beaver Valley 2 are uneconomic; neither Perry 1 or Beaver Valley 2 provide energy savings for ratepayers. Thus, these units are not useful. The Company has not successfully rebutted this evidence. Therefore, the Commission should adjust Duquesne's current rates first, to provide the appropriate relief. Once that is done, and it should be done, these units, then, fail to meet the definition of recoverable stranded costs in the Act. The Commission must, then, disallow the cost of these units in its stranded cost calculation. Hughes M.B. at 7-8.

(iii) Duquesne's cold reserved units should not be included in the Commission's calculation of the Company's stranded costs.

Duquesne is seeking recovery of the costs associated with the Brunot and Phillips units that are in cold reserve. The Company freely chose to remove these units from service.

By the Company's own admission (Exhibit DH-6), Brunot and Phillips are efficient and reliable generators. The Company could have kept these units in rate base and cold reserved more uneconomic units (e.g., Perry 1 and Beaver Valley 2), but it chose not to do this. Cold reserved units are not recoverable under regulation or traditional ratemaking. Thus, these assets are not stranded costs by definition. 66 Pa. C.S. §2803. The Company has not offered a valid reason for recovery of these assets, and expressed no intention to return these units to rate base. Therefore, Mr. Hughes supports the OTS and HHS/ARI in requesting that the Commission not include the Brunot and Phillips cold reserved units in its stranded cost calculation. Hughes M.B. at 7-8.

(iv) Duquesne has a poor stranded cost mitigation track record.

Section 2808(c)(4) of the Act requires the Commission to consider mitigation efforts undertaken by the Company in making a determination of stranded cost recovery. First, the Company's mitigation efforts have been poor, at best. As Jonathan Muehl's direct testimony plainly shows, Duquesne has had sufficient resources to mitigate all of their stranded costs. Duquesne chose to be the number one utility in the United States, in terms of shareholder return, rather than mitigate its stranded costs. Duquesne has not rebutted Mr. Muehl's testimony. Hughes M.B. at 9.

Secondly, a close look at Duquesne's testimony regarding the Company's mitigation efforts discloses an inflated mitigation calculation that is embarrassingly transparent. Although Mr. Clayton attempted to obfuscate the issue in his cross, N.T. 278-285, both he and

Mr. Marshall are quite clear in their direct testimony[140] that most of the dollar amount of mitigation comes from cancellation of planned capacity additions that have nothing to do with the transition to competition. The cancellation of the Erie 1 and 2 and Davis Besse 2 and 3 nuclear units in 1980, the cold reserving of Brunot Island and Phillips in 1985 and 1986, and the abandonment of Perry 2 in 1986, have nothing to do with mitigating stranded costs as called for in the Act. And to claim "avoided rate increases" as stranded cost mitigation is laughable. The only decision or action that Duquesne has taken that can even be considered as a mitigating factor in reducing potential stranded costs is the Fort Martin sale. Thus, the $130 million in savings from the Fort Martin sale is the extent of Duquesne's stranded cost mitigation. The truth is, Duquesne has done very little in this regard and the Commission should seriously consider this fact in determining just and reasonable stranded cost recovery. Hughes M.B.at 9-10.

(v) The Commission should follow the law in determining a just and reasonable stranded cost recovery.

David Marshall would have us believe that "the Act . . . makes no reference at all to a generic 'sharing' of stranded costs."[141] However, Sections 2802(8) and 2804(14) are very clear in calling for a fair sharing of the burdens associated with the transition to competition. If mistakes are to be shared, the fairest method of sharing is, by definition, a 50/50 split of these costs. Accordingly, anything more than a 50% recovery of stranded costs is unjust and unreasonable. In addition, Mr. Hughes asks that the Commission seriously

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[140] Marshall Direct Testimony at 19-20; Clayton Direct Testimony at 24.
[141] Marshal Rebuttal Testimony at 18.

consider that, up to now, only customers of Duquesne have borne the negative consequences of Duquesne's management decisions. As Mr. Muehl's testimony illustrates, Duquesne's shareholders have only reaped positive benefits from Duquense's nuclear investment saga. Is it not time to swing the pendulum back to the fairness range? Hughes M.B. at 10.

(vi) Conclusion

To conclude, first, ratepayers are due a refund for the losses associated with the Perry 1 and Beaver Valley 2 nuclear units since 1990. Second, there is no justification for recovery of future costs associated with the Perry 1, Beaver Valley 2, Brunot Island and the Phillips investments. Duquesne has failed to adequately mitigate its stranded costs as required by the Act and has not met its burden of proof in rebutting the arguments for disallowance. For the Company to request 100% stranded cost recovery assumes that the current rates would remain in place for the life of the units in question. Mr. Hughes submits that, had deregulation not occurred, it is extremely unlikely that Duquesne's current rates would have remained in place for long; the Commission would eventually do what he is asking it to do now. First, adjust Duquesne's current rates to a level that is just and reasonable, and make that adjustment retroactive, as per Section 1312 of the Code, to 1990. Second, disallow the cost of Perry 1, Beaver Valley 2, Brunot and Phillips stations from any stranded cost recovery. Hughes M.B. at 11 (Revised).

Accordingly, Mr. Hughes requests that the Commission consider implementing one of the following three remedies (all figures in 1997 present value dollars):

1. Using Mr. Biewald's unrebutted calculations, and keeping in mind Section 1312 of the Code, issue a refund to ratepayers of $2,245 million

for Perry 1 and Beaver Valley 2 losses experienced from 1990 to 1998. Disallow the full value of Perry and Beaver Valley 2 from stranded cost recovery, or $934.4 million; or

2. Refund $2,245 million and, based on Mr. Biewald's Exhibit BEB 5 & 6, disallow $527 million in stranded cost recovery for Perry I and Beaver Valley 2 losses for the years 1999 through 2026; or

3. In the spirit of compromise and sharing of the burden as required by the Act, the Commission should, at the very minimum, issue a refund to customers in the amount of $1,123 million and order a stranded cost recovery disallowance of one-half of the Company's claim of $1,899 billion [sic], or $949.5 million. Hughes M.B. at 11-12 (Revised).

These recommendations only deal with the costs addressed in Mr. Hughes' brief and are not to be considered as his proposal for total stranded cost disallowance/recovery. He further argues any stranded cost award in excess of 50% of the amount the Commission determines to be recoverable, would be in bilingual of the act. Thus, if the Commission accepts Duquesne's stranded cost claim of $1,899 billion [sic], the Company should be permitted to recover no more than $949.4 million [sic]. Finally, Mr. Hughes requests that the Commission discount any stranded cost recovery in the amount that Duquesne received as part of its settlement with the General Electric Company relative to the GE Mark III reactor problems at the Perry Plant. Id. at 12.

(d) Recommendation

Previous sections of this decision, supra, address the concerns of the City and certain issues Mr. Hughes raises in this section. Neither of these parties raise any new or novel arguments to warrant changing those recommendations and the Commission need take no further action. As to the remaining issues of Mr. Hughes, the record amply supports the contentions

of the Company that they lack merit. For these reasons, I urge the Commission to deny the arguments of Mr. Hughes.

VII. The Competitive Transition Charge

A. Conceptual Disputes Regarding Calculation of CTC/CGC

1. Differences In Overall Approach

(a) Duquesne's Proposal

The Company notes the method for calculating the CTC is one of the most complex and misunderstood aspects of this case. While there are a multiplicity of proposals in this regard, they generally fall into two categories. Duquesne M.B. at 60.

The first, proposed by Duquesne, is a "top down" approach that sets rates according to Section 2804(4)(v) of the Act. Under this approach, the CTC is calculated each year as a "residual" - i.e., it is that which remains after deducting (i) the distribution rate, (ii) the transmission and ancillary service rates, and (iii) the shopping credit (or CGC) from currently approved rates. See, Duquesne St. 5 at 9-10. This proposal has two other important features as well. First, the shopping credit adjusts each year to track changes in market prices, Id. at 56; consequently, because it is a residual, the CTC adjusts each year in inverse proportion thereto. Second, as required by Section 2804(4)(v), excess earnings, if any, will be used to accelerate stranded cost amortization and shorten the CTC collection period. Duquesne St. 2 at 42-43; Duquesne M.B. at 60.

The second general approach, proposed by the OCA (and applied in modified form in PECO Energy), is a "bottoms up" methodology. This methodology differs from the one described above in that (i) the CTC is not calculated with reference to current rates (i.e., after subtracting T&D and CGC rates); (ii) there is no accelerated amortization of stranded costs; and (iii) the CTC does not vary each year to reflect actual changes in market prices. OCA St. 4 at

14-15; OCA Exh. LS-4; PECO Energy, Slip Op. at 41-42. Rather, the CTC is a fixed schedule of payments[142] designed to recover a fixed amount of stranded costs over a set period of time. OCA Exh. LS-4; PECO Energy, Slip Op. at 41-42; Duquesne M.B. at 60-61.

These two proposals are marked by two key differences that generate the intense disputes that have arisen in this case. The first is that the OCA methodology will tend to produce immediate rate reductions[143] (given certain stranded cost assumptions) and lengthen the CTC collection period, while Duquesne's methodology will maintain current rate levels while tending to shorten the CTC collection period (again, given certain assumptions). The second difference is that under the OCA methodology, there is no guarantee that the shopping credit will reflect current market prices, while a basic premise of Duquesne's approach is that the shopping credit must accurately reflect market prices to ensure that customers face the right price signals. Duquesne St. 5 at 56; Duquesne M.B. at 61-62.

These debates, while vigorous, are academic because under Section 2804(4)(v), Duquesne has the statutory right to continue charging current rates and use any excess earnings to accelerate the amortization of stranded costs. To be sure, there are other subsidiary disputes that require careful attention (e.g., the appropriate methodology for determining the shopping credit), but this threshold question has been decided, in Duquesne's favor, by the Act. Duquesne M.B. at 62.

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[142] Under the OCA proposal, the fixed CTC schedule declines each year, OCA Exh. LS-4, while under PECO Energy the CTC is "levelized." PECO Energy, Slip Op. at 41.

[143] Under the OCA proposal, all customers will receive such rate reductions (whether or not they switch suppliers), OCA St. 4 at 15, while under the PECO Energy Order only customers that "shop" for power receive rate reductions. PECO Energy, Slip Op. at 43.

(b) **The OCA's Position**

The OCA explains the competitive transition charge ("CTC") is the charge which the Act provides for recovery of transition costs from customers. 66 Pa. C.S. §2808. The Act allows application of the CTC only through December 31, 2005 ("the CTC recovery period") "unless an alternative payment methodology is mutually agreed upon by the customer and the utility or unless the [C]ommission in its discretion and for good cause shown orders an alternative payment period." 66 Pa. C.S. §2808(b); OCA M.B. at 64.

The competitive generation credit, ("CGC") also referred to as the "avoidable generation charge" or "shopping credit," is not a charge, but is simply the amount of the utility's charges that a customer will not have to pay if the customer purchases generation from an alternative supplier. Duquesne St. 5 at 63. The CGC is a regulatory concept and is nowhere defined in the Act, and in this case, and for different purposes, parties have defined, and calculated, the CGC in different fashions. OCA M.B. at 64.

The simplest way to look at the issues surrounding the determination of CTCs and CGCs is to start by looking at the total rate of the utility. As shown on OCA witness Lee Smith's Exhibit LS-7R, the Company's current total average rate is 8.930¢/kWh. Subtracting out Ms. Smith's calculations of the appropriate unbundled charges for Transmission and Distribution combined of 2.211¢/kWh as shown on Exhibit LS-7, the remaining revenue at current rates is 6.719¢/kWh, which is available to cover the Company's remaining costs, i.e., its embedded generation costs including administrative and general costs that have been allocated to generation. Further, embedded generation costs in this case are broken down by those costs

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