

POWER4Georgians Comments on TR Rose Report “Power4Georgians Plant Washington Coal-Fired Power Plant: Too High a Price for Consumers”

General Comment: TR Rose works primarily with environmental groups to write reports in opposition to coal-fired power projects throughout the country. It is an agenda-driven report that uses inflated and non-applicable costs to exaggerate the estimated cost of energy from Plant Washington. This report has not been vetted by any peer review and its findings are highly suspect.

In addition to using bloated power generation cost components, the Rose report also assigned two additional costs to Plant Washington that are not generally found in any “industry standard” power generation cost study – a rate-based “normal residential charge” and a transmission and other “basket-of-charges” charge. It seems Rose has confused power generation costs with T&D costs and rate making.

Most reputable power generation cost studies calculate the cost of the energy at the power generation unit and not at the customer’s meter. The cost of electricity from Plant Washington - and all power generation facilities no matter their source of fuel (coal, NG, nuclear, solar, biomass, etc.) – is traditionally determined at the plant’s busbar. This provides a true and accurate picture of the actual cost of the electricity produced by the plant. This makes it easy to compare power generation costs from various facilities as it is calculated at a common point. The rate and transmission costs included in the TR Rose report have nothing to do with cost of power generation and should not have been included in their report.

Now let’s take a look at the assumptions used in report by Rose.

Rose Construction Cost Claim: *Rose estimated that Plant Washington would start construction in 2013-2014 and begin commercial operation in 2017-2018. For the purpose of this analysis, Rose estimated the cost of the plant with financing for the 2013-2014 market to be \$3.9 billion or \$4,588/kW.*

The TRUTH: Rose greatly exaggerated the cost to build a new coal-fired power plant. The estimated cost to build Plant Washington will be approximately \$2.4B or \$2823/kW. This estimate is in line with the U.S Energy Information Administration (EIA), Annual Energy Outlook (AEO) 2010 estimated overnight cost (no financing cost) for an advanced pulverized coal plant (similar to Plant Washington) for year 2010. If you escalate this number to 2013-2014 dollars and add appropriate financing costs to the project, the total cost will be approximately \$3.0 billion, not \$3.9 billion. Rose overestimated the total cost of construction by 30%.

Rose Capital Cost Claim: *Rose used a 9.5% interest rate as its cost of capital to build the plant.*

The TRUTH: This cost of capital is not in line with recent estimates provided by multiple investment banks that have expressed interest in Plant Washington. Funds are available from some sources at below 5%. The cost of capital is a significant factor when it comes to calculating the overall cost of energy. Overstating this factor impacts the cost of energy over the life of the plant.

Rose Carbon Cost Claim: *The Rose report assumes that the impact of carbon legislation would result in a CO2 cost of \$18 per ton of CO2 produced by the plant within the first five years of operation of the plant.*

The TRUTH: A “carbon tax” of \$18 per ton is not foreseeable in the current political landscape in Washington DC. The political climate has changed since the 2008 election making any carbon legislation highly unlikely. Not mentioned in the Rose report is that any proposed carbon legislation will equally impact all carbon-based fuels, including oil and

natural gas. Rose added a cost to Plant Washington that, in all likelihood, will not come to fruition.

Rose Capacity Factor Claim: *The cost model in the Rose report is based on an 80% capacity factor.*

The TRUTH: Plant Washington is expected to operate at a capacity factor of about 90%. By reducing the annual run time to 80%, Rose assumes the plant will produce fewer kWhs of electricity. This tactic spreads the annual capital cost and fixed O&M cost over fewer units of energy, which drives up the unit cost of electricity. With this tactic, Rose overstated the cost of electricity from Plant Washington by more than 12%.

Rose Coal Cost Claim: *The Rose analysis supports delivered coal prices of \$65.00 per ton for PRB coal by 2017, and \$75.00 per ton for Illinois Basin coal.*

The TRUTH: This is a reasonable cost per ton projection. However, Rose calculated Plant Washington’s annual fuel (coal) usage and cost assuming the plant was operated 100% of the year. As previously stated, Rose assumed the plant was operated only 80% of the year. Rose did not adjust the annual cost of fuel to reflect the reduced running time. Therefore, Rose overstated the annual fuel cost for Plant Washington by at least 10%.

Rose O&M Costs Claim: *Rose assumed an annual O&M cost of \$109 million.*

The TRUTH: Again, referring to the EIA - AEO 2010 report, the fixed O&M cost is estimated to be \$35.97 per kW and the variable O&M costs to be \$4.25 per MWH. Using the EIA cost data along with a 90% capacity factor and appropriate escalation rates, the annual O&M cost for Plant Washington is estimated to be about \$65 million – NOT \$109 million as estimated by Rose. Thus, Rose overstated the total O&M cost by 68%.

Rose Residential Adjustment Claim: *Rose added 10% to the busbar cost to reflect the generally higher rates paid by residential consumers versus industrial, commercial or other business users.*

The TRUTH: Rose is confusing rate making with power generation costs. This cost adjustment has nothing to do with the cost of electricity produced by Plant Washington and should not have been included in the energy cost calculation. With this tactic, Rose simply added another 10% to the cost of energy coming out of Plant Washington.

Rose Transmission Costs Claim: *Rose added \$0.055 per kWh to the busbar cost for “transmission and other basked-of-cost charges”.*

The TRUTH: This cost should not have been included in calculating the cost of energy from Plant Washington. Transmission, distribution and meter reading/billing costs are considered a downstream cost-of-service, not a power generation cost. Rose simply found a way to pile on another 5.5¢ to the unit cost of energy leaving Plant Washington.

Rose Claim v TRUTH Summary

Cost Component	Impact on generation costs calculation
Construction	Overestimated cost by 30%
Capital	Overestimated cost by at least 25%
Carbon	Overestimated cost by \$18 per ton
O&M	Overestimated cost by 68%
Capacity Factor	Increased cost of energy by 12%
Fuel (Coal)	Overestimated cost by 10%
Residential Adjustment	Increased busbar cost of energy by 10% (Should have been excluded from generation cost study)
T&D Costs	Increased busbar cost of energy by 5.5¢ per kWh (Should have been excluded from generation cost study)

Note: These factors are not additive as they impact the cost of generation in different ways.