



Economic Evaluation of the Alpine Projects
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The Alpine power contracts will reduce the Authority's dependence on oil fueled generation, provide more stability in the cost the Authority pays for fuel, and save customers \$101 to \$275 million dollars on a net present value basis, and \$304 to \$715 million dollars on a cumulative basis over the 20-year term of the Agreements. The savings will accrue from a reduction in the Authority's oil costs, capital costs, and operation and maintenance costs. These savings are based upon the following conservative assumptions: costs of fuel oil, petroleum coke, new waste products, plant efficiency, and U.S. government incentives. Even using more pessimistic assumptions that assume the costs of complying with any future carbon regulatory requirements, such as required purchases of CO₂ allowances, the savings for the two power contracts are projected to be \$10 to \$183 million dollars over on a net present value basis and \$67 to \$477 million dollars on a cumulative basis over the 20-year term.

As indicated above, the estimate of the savings that accrue from the Alpine agreements are based on conservative assumptions which are outlined in further details below:

- a) The projected savings range referenced above is the result of assumptions regarding pet coke prices and oil prices for existing Authority generation facilities. The upper end of the oil price range was based on the U.S. Department of Energy's ("DOE") Energy Information Administration ("EIA") Annual Energy Outlook Reference Case Update (the "Base Case Oil Price Forecast"). The low end of the range is equal to 80 percent of the oil price forecast. No scenarios were evaluated assuming oil prices higher than the Base Case Oil Price Forecast. If oil prices are higher than the Base Case Oil Price Forecast, the savings to the Authority will be greater than projected for the upper range.
- b) Pet coke prices were assumed to be in the range of \$1.09 to \$2.18/MMBtu in the year 2012, escalating by the year 2030 in the range of \$1.24 to \$2.48/MMBtu. Based on information gathered from the DOE and EIA, the delivered pet coke prices year to date through August 2009 have averaged \$1.64/MMBtu, which is approximately in the middle of the assumed starting range for the year 2012. It is anticipated that the Authority will be able to obtain lower prices than the average U.S. delivered pet coke prices referenced herein, due to the close proximity of the Alpine Facilities to HOVENSA, where the pet coke is produced and a favorable pricing arrangement with the refinery.
- c) In scenarios in which CO₂ legislation is assumed, no credits to the Authority have been assumed for using carbon neutral biomass fuel, or reducing methane gas that would otherwise be produced by waste materials being land filled. This could significantly reduce the amount of allowances that the Authority would be required to purchase and therefore increase the savings associated with the scenarios that assumed the enactment of CO₂ legislation.

- d) The economic evaluation also assumed that the minimum guaranteed level of Refuse Derived Fuel (“RDF”), which results from Municipal Solid Waste (“MSW”), will be supplied. Alpine has committed to provide the guaranteed amount of RDF and other fuels including waste tires, sewage sludge, waste oil, rum bottoms and woody biomass. If Alpine supplies more fuels, the Authority gets 100 percent of the benefit (it purchases less pet coke) up to an agreed amount. Above the agreed upon amount, the Authority gets half of the savings.
- e) The power purchase agreements require that the use of pet coke is tracked to ensure that the Alpine plant facilities are operated in an efficient manner, such that pet coke usage meets certain targets with respect to tons burned per MWh of energy produced. There is a requirement in the agreements that Alpine share the benefit with the Authority if efficiency is higher than the minimum guaranteed levels. The economic evaluation assumed that the minimum guaranteed efficiency is achieved.
- f) Alpine is entitled to any tax credits or other incentives from economic stimulus programs established by President Obama and the U.S. Congress to encourage alternative energy facilities. The Authority and its ratepayers will receive 90 percent of that tax credit or incentive. None of these tax credits were assumed in the economic evaluation.

There have been a number of inaccurate statements in the print media concerning the economic evaluation of the Alpine Projects. In the interest of ensuring that the public is provided factual and accurate information, we have chosen to address some of these articles below:

1. In the November 12, 2009 edition of the Daily News, the article quotes St. Thomas attorney Emily Sabo as stating, “All the way around, all the different variables out there are really stacked against the rate payers.” This statement is wholly inaccurate and reflects a total misunderstanding of the assumptions used in the economic analysis as outlined above. The article further states that Atty. Sabo took issue with what is referred to in the Alpine Agreements as a “Tracking Account”, which she reported as being “essentially a financial incentive for Alpine to burn more refuse than petroleum coke, the cost of which will be passed on to the consumer.” This is a clear misrepresentation of the agreement and the economics of the project. As explained above, the “Tracking Account” is, in simple language, a mechanism to ensure that the use of the pet coke, which the Authority pays for, is minimized, thereby reducing the costs to the consumers.
2. The Daily News edition dated December 2-3, 2009 printed an opinion by Mr. Eddie Donoghue, which stated that a generating resource that used pet coke was not eligible for consideration under the RFP. The RFP document stated, however, that the Authority was issuing the RFP to reduce the cost of electricity to its customers and decrease the Authority’s dependence on volatile oil prices, by attracting the development or expansion of non-oil electricity generation facilities. The intention per the procurement was clearly to attract resources that are not priced similar to oil. As

shown on Exhibit 1, the significantly lower price and price stability of pet coke over the last 18 years compared to oil demonstrates that a pet coke fueled facility does meet the RFP criteria. Mr. Donohue further went on to imply that a bidder submitting a pet coke proposal had a large advantage over other bidders in the procurement because the pet coke facility would obtain “free fuel from WAPA” ,referring to the arrangement whereby the Authority pays for the pet coke fuel consumed. This statement is incorrect because the cost that the Authority was projected to pay for pet coke was taken into account in the economic evaluation.

Mr. Donoghue further stated that two consultants from R.W. Beck that were used by the Authority, should have removed themselves from the procurement process because they worked for the same company where Mr. Don Hurd, an officer of the Alpine team, was previously employed until he resigned in 1996. To clarify this matter, one of the two Authority’s consultant neither knew nor worked with Mr. Hurd during their overlapping tenure at R.W. Beck over thirteen years ago. The other consultant neither worked at the same company at the same time as Mr. Hurd, nor knew him prior to this project. Moreover, the results of the technical and economic analysis that R.W. Beck’s consultants performed on the Alpine projects were based on their sound profession and technical judgment and expertise, and was properly vetted by the Authority’s own technical staff.

3. The Daily News edition dated December 2, 2009, contained an opinion by Mr. Paul Chakroff who implied that based on the projected capital cost for the Alpine waste-to-energy project, the “cost per MW of generating electrical energy is very high compared to alternatives.” What Mr. Chakroff has not taken into account is that even if the cost to build renewable facilities is similar to the cost to build an equivalent sized waste-to-energy facility, the waste-to-energy project can operate 80 to 90 percent of the time, whereas, the wind and solar alternatives typically operate around 15 to 25 percent of the time. This higher utilization reduces the cost per unit of energy produced by the waste-to-energy facility when compared with these renewable alternatives.

The opinion piece further goes on to indicate that the cost of electrical generation for the Alpine project, excluding pet coke, would increase up to 28.5 cents and 31.9 cents per kWh for St. Croix and St. Thomas, respectively by the end of the 20 year term. This cost analysis erroneously used prices at the end of year 27. The Authority is only committed to a 20 year contract term. The correct price in year 20 is 22.2 and 23.3 cents per kWh for St. Croix for on-peak and off-peak, respectively and 23.1 and 24.6 cents per kWh for St. Thomas for on-peak and off-peak, respectively. In addition, if the Authority takes more energy than the minimum requirement, these rates are reduced by 30 percent.

Mr. Chakroff also implied that the market price of pet coke is more volatile than fuel oil, and supports this statement with a reference to an article that cites recent increases in pet coke prices. As shown on Exhibit 1 the price of pet coke has varied between \$1.00 to \$2.00 per MMBtu over the last eighteen (18) years, whereas oil prices have

varied by as much as \$10.00 to \$15.00 per MMBtu over this period. As far as the impact on electric costs, oil prices represent a much more significant potential expense to the consumers. Chakroff's opinion also implies that energy to process the Municipal Solid Waste ("MSW") to produce Refuse Derived Fuel ("RDF") for the Alpine project is provided by the Authority at no cost. This is not true. As stated in Section 4.14 and Schedule 10 of the power purchase agreements between the Authority and Alpine, the Authority receives a credit on its bill associated with the energy supplied to Alpine to produce RDF, which reduces the energy costs to consumers.

The Authority will continue in its efforts to provide the public accurate and factual information about the Alpine agreements. To this end, the Authority and the Virgin Islands Waste Management Authority will jointly conduct a series of town hall meetings throughout the Territory to further inform the public on the "FACTS" of the Alpine Energy Group (AEG) Agreements and the waste-to-energy projects. These meetings are scheduled as follows:

Monday - January 11, 2010: St. Croix - V. I. Port Authority Conference Room at the Henry Rohlsen Airport
6:00 pm – 9:00 pm

Tuesday - January 12, 2010: St. Thomas - Holiday Inn Windward Passage Hotel, Caribbean A Conference Room
6:00 pm – 9:00 pm

Thursday - January 14, 2010: St. John - V. I. Legislature Chamber
6:00 pm – 9:00 pm

The Authority encourages all interested parties to participate in the public meetings and bring forth their comments and concerns. We trust that the resulting open dialogue at the meetings will enlighten and inform the members of this community on all aspects of the AEG project, and allow for first hand information from individuals who know the facts associated with these projects.

Exhibit 1

Delivered Cost @ Electric Power Plants - \$/MMBTU

Source: EIA Monthly Energy Review

