

REPORT TO:

**THE CONGRESSIONAL TASK FORCE
ON ECONOMIC GROWTH IN PUERTO RICO**

PREPARED BY:

SEAONE CARIBBEAN, LLC

AUGUST 9, 2016



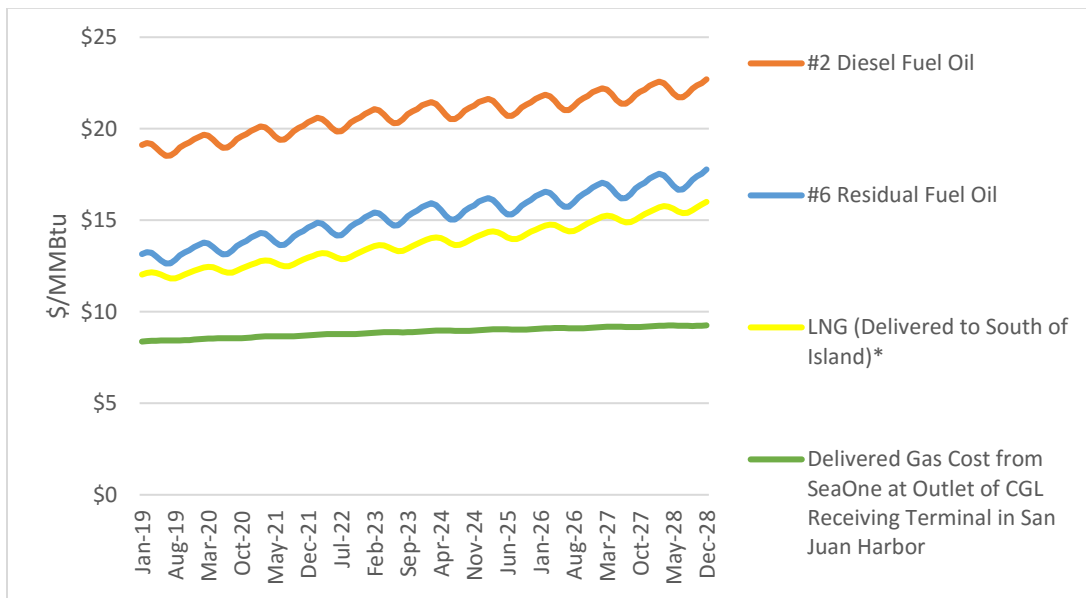


EXECUTIVE SUMMARY

Solving Puerto Rico’s financial and debt crisis is a complex problem that will require multi-faceted solutions over many years. However, one of the most critical things that can be done to help Puerto Rico is to lower the cost of fuel and electricity. Puerto Rico has some of the highest electricity rates in the U.S. and this puts a substantial drag on its economy. Lowering the cost of fuel used in power generation and for other industrial, commercial and residential uses is paramount to putting Puerto Rico on a path to recovery.

SeaOne Caribbean, LLC (SeaOne) has a project under development to deliver gas and natural gas liquids (NGLs such as propane, butane, LPGs, etc.) to the Caribbean and Central America using our patented system at a cost well below other competing fuels such as diesel, residual fuel oil or gas delivered as liquefied natural gas (LNG). As demonstrated in Exhibit 1, gas delivered by SeaOne will be the lowest cost fuel to Puerto Rican power plants.

Exhibit 1: Forecasted Fuel Prices to Power Plants in Puerto Rico



Sources: PREPA, Integrated Resource Plan Volume III: Demand and Fuel Forecasts and Demand Side Management, Draft for PREC Review, August 17, 2015 and SeaOne proprietary cost data.

*Note that gas from the SeaOne project and both #2 and #6 oil would be delivered directly to the major demand center in San Juan and can be used in existing power generation units in the San Juan area. LNG would be delivered to the south of the island and would require PREPA to invest as much as \$4 billion in LNG regasification facilities, electric generation plants and electric transmission lines to deliver power to the San Juan area.

This paper will further discuss the energy challenge in Puerto Rico, explain the benefits of the SeaOne project and request the Task Force to take action to ensure that Puerto Rico obtains the lowest cost energy available to the island.

THE CHALLENGE FOR PUERTO RICO

With stagnant growth and mounting debt, Puerto Rico’s on-going financial crisis has been exacerbated by its high energy costs. Puerto Rico’s electricity costs are among the highest in the nation and almost double the national average (see Exhibit 2). Further, when viewed as a share of median household income, Puerto Rican electricity costs are even worse, averaging almost five times the U.S. average (see Exhibit 3).

Exhibit 2: Residential Electricity Prices in U.S. Markets

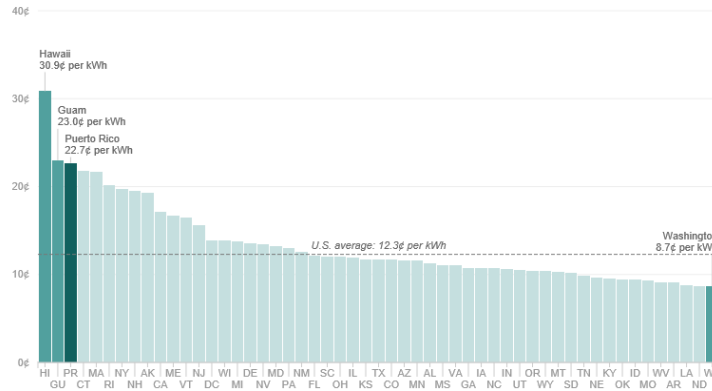
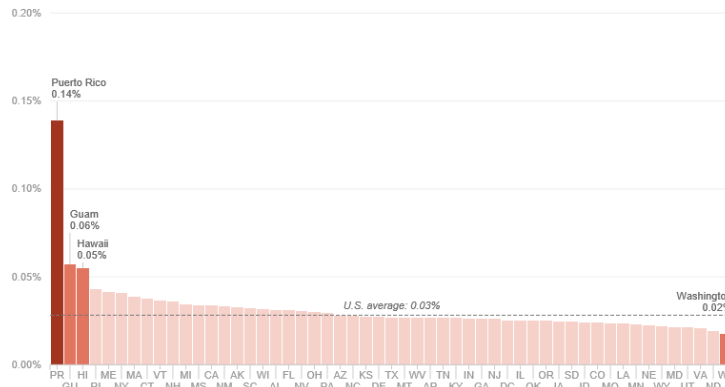


Exhibit 3: Cost to Run a Central Air Conditioner for 24 hours, as a Share of Median Household Income



Notes:

- Power rates are as of February 2015, except Guam, whose rate is as of November 2014.
- Median household income estimates are as of 2013.
- Central air conditioning example assumes that the unit consumes 5 kilowatt hours of electricity per hour.

Source: U.S. Energy Information Administration; Oficina Estatal de Política Pública Energética; GE Data Visualization: Home Appliance Energy Use; U.S. Census Bureau: 2009-2013 5-Year American Community Survey
 Credit: Christopher Groskopf and Alyson Hurt/NPR

These high electricity rates are driven primarily by two factors. First, Puerto Rico relies on petroleum fuels for over 70% of its power generation.¹ Petroleum prices are forecasted by Puerto Rico’s power utility, Puerto Rico Electric Power Authority (PREPA), to be significantly above natural gas prices in the coming years.

¹ PREPA, Integrated Resource Plan Volume I: Supply Portfolios and Futures Analysis, prepared for PREPA, August 17, 2015, p. 3-3.



Secondly, PREPA has many aging and inefficient power plants that will require significant capital expenditures to upgrade or replace. However, PREPA's financial problems will continue to make it difficult to incur more debt for modernization and efficiency improvement projects, thereby leaving conversions to lower-cost gas as PREPA's best solution for quickly reducing its rates and solving its pollution problems. The use of fuel oil in most of its plants has made PREPA non-compliant with air emissions regulations risking significant fines from the Environmental Protection Agency (EPA) but more importantly affecting the health of hundreds of thousands of American citizens. The environmental issues are particularly serious in the San Juan metropolitan area, where over 70% of Puerto Rico's population is located and pulmonary ailments are more prevalent than in the rest of the population.

For many years, PREPA has sought to bring natural gas to the San Juan region in order to gasify the existing power plants in the area and new plants in the future. Without access to natural gas, the PREPA plants in the North (San Juan & Palo Seco) have continued, and will continue, to burn diesel and heavy fuel oil. PREPA is seeking to bring LNG into the south which also requires new generation and transmission lines to bring the power to the north. The option for LNG in the south represents a very complex and expensive path which only partially alleviates San Juan's environmental issues.

THE SOLUTION

SeaOne's project to deliver U.S. gas and NGLs (including propane, butane, LPGs and other gas liquids) to Caribbean and Central American markets is ideal for Puerto Rico, providing access to cleaner and significantly lower cost energy. SeaOne's business is based upon three key tenets:

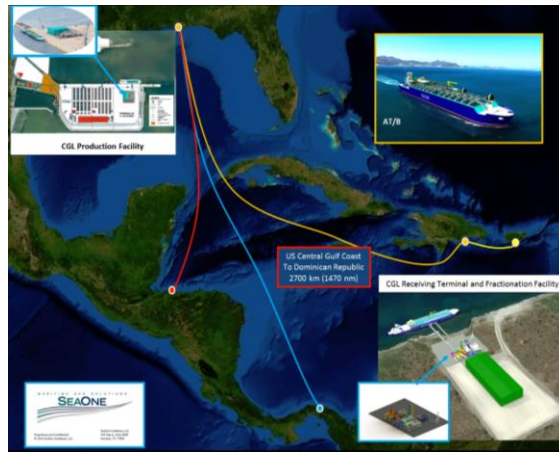
- (1) to provide the lowest cost gas and NGLs to Caribbean and Central American markets;
- (2) to deliver both gas and NGLs in a single cargo; and
- (3) to allow customers to have complete control of their gas and NGL purchases.

SeaOne's project uses our patented Compressed Gas Liquids (CGL[®]) system which is the optimization of long-existing gas processing equipment. Specifically, SeaOne will export gas and NGLs from its Export Facility in the existing Port of Gulfport, Mississippi (see Exhibit 4) to its CGL Receiving Terminals in the Caribbean and Central America including Puerto Rico (see Exhibit 5). SeaOne Puerto Rico, LLC will be the owner and operator of the CGL Receiving Terminal being developed in the City of Guaynabo, near the Port of San Juan. SeaOne will begin service to Puerto Rico (and other Caribbean markets) in the first quarter of 2019.

Exhibit 4: CGL Production and Export Facility in the Existing Port of Gulfport, MS



Exhibit 5: Delivery of Gas and NGLs from the U.S. to the Caribbean and Central America



SeaOne offers the most competitive long-term source of gas and NGLs available in the Caribbean, with many additional benefits in terms of pricing structures, delivery flexibility and reliability. In particular, SeaOne is able to provide a high-Btu “rich” gas that will enable more efficient conversion of existing fuel-oil fired generating plants and will extend the life of these plants. SeaOne’s fuel delivery service will allow our customers to i) save significantly on fuel cost, ii) mitigate fuel price volatility, iii) improve their emissions profiles, and iv) postpone the need to incur debt to replace generation plants.

SeaOne’s project will bring gas directly into the San Juan metropolitan area. SeaOne’s vessels operate in shallower water depths than LNG vessels and enables SeaOne to bring gas into San Juan harbor, within close proximity to both of PREPA’s San Juan area power plants (see Exhibit 6).

Exhibit 6: Location of Proposed SeaOne CGL Receiving Terminal in San Juan Harbor



The benefits to PREPA from utilizing gas from the SeaOne project are significant:

- Based on recent fuel consumption patterns, the savings from burning gas from the SeaOne project versus burning diesel in just the San Juan area plants would be over \$5 Billion over 10 years, which equates to over 3 cents/kWh savings across the entire PREPA sales base.²

² All calculations have been made using costs and fuel price forecasts from the PREPA Integrated Resource Plan, Draft for PREC Review, August 17, 2015.



- In addition to fuel cost savings, SeaOne's project could help PREPA avoid incurring up to \$4 Billion of new debt required for the development of the LNG regasification terminal, new generation plants and new power transmission lines to the north. The avoidance of these investments equates to another 1.4 cents/kWh savings for PREPA's customers.³
- Gas via SeaOne will result in a 62% reduction in air pollution equivalent to 21,000 tons per year reduction of CO₂, SO₂, and NO_x emissions around the San Juan metropolitan area.

The savings to Puerto Ricans extend well beyond PREPA also. The SeaOne Project will bring lower cost gas and NGLs to many manufacturers and commercial and residential customers. This will lower energy bills for all consumers while enabling industry on the island to be more competitive, leading to greater job growth. In 2012, the ICECEA reported that gas in the north would foster the creation of 20,000 new jobs and avoid the potential loss of 40,000 to 60,000 jobs in Puerto Rico's manufacturing sector.⁴

Further, SeaOne offers numerous other safety and environmental benefits relative to other fuel sources:

- SeaOne's Receiving Terminal has a zero carbon footprint at site;
- SeaOne uses no process water and creates no wastewater; and
- As confirmed by Lloyd's Register Safety Consulting, SeaOne's process modules are inherently safe in design and utilize familiar technologies within the gas processing industry.

In summary, the SeaOne project offers numerous benefits that cannot be found with any competing fuel supply source to Puerto Rico:

- The lowest all-in delivered cost for fuel over the long term;
- Delivery of gas and NGLs directly to the San Juan metropolitan area;
- Direct access to U.S. gas supply with its long-term stable pricing and ability to hedge;
- Significantly lower emissions, which would assist in achieving EPA compliance and improve health conditions;
- Extension of the useful life of existing generating stations;
- No up-front capital/debt required for the SeaOne system; and
- Job creation and related economic benefits.

REQUEST TO THE TASK FORCE

1. Call on the Government of Puerto Rico and the Oversight Board to promote repowering of all power plants to run on natural gas – ideally U.S. gas.
2. Request that the Oversight Board review PREPA's plans to guarantee that the most cost-effective alternative is being pursued that also achieves compliance with EPA regulations.

³ Capital costs amortized over 20 years.

⁴ Intersectoral Committee on Environmental Compliance and Energy Alternatives – ICECEA, Report on the Necessary Measures to Comply with the New EPA Regulations, and the Conversion to, and Use of Natural Gas in, the Northern Power Plants, issued June 15, 2012.