

POSEIDON TRANSMISSION 1, LLC

POSEIDON PROJECT

EXHIBIT 6 – ECONOMIC EFFECTS OF PROPOSED FACILITY

PREPARED PURSUANT TO SECTION 86.7

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
EXHIBIT 6 – ECONOMIC EFFECTS OF PROPOSED FACILITY	6-1
6.1 Effects on Energy Supply and Prices	6-1
6.2 Other Economic Effects	6-2
6.2.1 Long-Term Effects Related to Land Use Patterns	6-2
6.2.2 Community Impacts	6-2
6.2.3 General Economic Impacts	6-2
6.2.4 Short-Term Effects	6-2

EXHIBIT 6 – ECONOMIC EFFECTS OF PROPOSED FACILITY

6.1 Effects on Energy Supply and Prices

The Poseidon Project will strengthen the reliability of the downstate New York power grid by bringing 500 MWs of energy and capacity from the 500kV backbone of the PJM network into the heart of Long Island's transmission and distribution system. This HVDC transmission line, using state-of-the-art technology with an expected life of fifty years or more, will offer ratepayers in Long Island and New York State a remarkable range of economic, environmental, electricity, and public policy benefits for generations.

Appendix I, a report by ICF International, focuses on the direct benefits of increasing Long Island's access to lower cost energy supplies over the Project's first ten of what is likely to be more than 50 years of operation. Other key drivers of economic value are examined in this exhibit, including its reliability value, much longer expected life, access to a diverse pool of generation resources over its entire life, impact on the structure and operations of Long Island's and New York's State's complex electricity markets, and its ability to either provide capacity resources in Long Island (if Poseidon is used as a UDR resource), or to reduce Long Island's Location Capacity Requirement.

The Poseidon Project offers unique reliability benefits. It constitutes Long Island's first DC connection to the nation's 500kV power grid, in this instance at the 500 kV Dean's substation in South Brunswick, New Jersey. By connecting to the grid at this location, the Project accesses electric power at a point that ensures security of energy and supply and minimizes price volatility. There is no better interconnection point available to the Long Island market.

By offering Long Island's ratepayers physical access to the unequalled diversity of PJM's generation fleet, the Poseidon Project constitutes a long-term hedge against commodity and capacity price risks in the electricity markets. This long-term hedge capability is simply not available via another mechanism. The commodity and capacity price flexibility offered by the Poseidon Project is unique and of special value given the technological changes and unpredictability of the electricity markets.

The Poseidon Project also provides Long Island ratepayers access to PJM's energy and capacity which historically have been priced at lower levels than energy and capacity sourced on Long Island. The ICF report, summarized below, quantifies the savings from purchasing 500 MW of lower cost energy from PJM for ten years and the impact that Poseidon's 500 MW of lower cost power has on the wholesale market in Long Island and New York State. Not surprisingly, adding 500 MWs of lower cost power drives wholesale prices down and Long Island as well as New York ratepayers and businesses will enjoy substantial savings as a result. The impact of the Poseidon Project on Long Island's capacity markets depends on policy choices and is not presented in this report because transactions in the Long Island capacity market have thus far been bilateral and non-transparent. Nonetheless, Poseidon provides access to capacity resources in PJM that are much less expensive to build than they are in Long Island, and therefore provides Long Island and New York State decision makers with options for addressing the legacy power plants that dot the region – while enabling ratepayers to pay less for 500 MW of cheaper capacity. Over the medium term, the 500 MWs of lower cost capacity will gradually drive prices down, even in an imperfect market, and position Nassau and Suffolk decision makers to build a more reliable and efficient grid.

In summary, the ICF report concludes that the Poseidon Project will have produced \$3.7 billion of direct economic benefits to Long Island and New York State ratepayers during its first ten years of operation.(figure is net present value, discount rate is 9.24%)

- *Reduced Production Costs* - The cost of producing power is based on the sum of fuel costs, variable costs, and emissions costs. The diverse array of generation sources in the 13-state PJM market produces power 20% more efficiently than Long Island's generation fleet, which is aging, inefficient and costly. Tapping PJM's ample and efficient energy supply will also reduce congestion in Downstate New York and provide a hedge against price volatility. According to the ICF Report,

Poseidon will reduce energy production costs by \$1 billion in NYISO with \$573 million in savings to Long Island.

The increased efficiency of PJM-generated power also means important environmental benefits for New York. ICF predicts that Poseidon will reduce emissions (CO₂, NO_x, and SO₂) by 5,551-tons on Long Island and 11,678-tons statewide.

- *Reduced Price of Energy (Reduced Load Payments)* – The wholesale cost of energy is based on the product of energy consumption (load) and price. The highly efficient PJM market boasts energy prices that are 25-30% lower than on Long Island. According to the ICF Report, Poseidon’s 500 MW injection of efficient, low-cost energy into the Long Island grid will reduce average market prices \$2/MWh in NYISO and \$13/MWh on Long Island, achieving cost savings of \$2.7 billion in cost savings to NYISO with \$2.5 billion in direct relief to Long Island.

Area of Savings	Description	NYISO Savings	LI Savings
Production Costs	The cost of producing power – the sum of fuel cost, variable cost and emissions cost	\$1 billion	\$573 million
Price of Energy (Load Payments)	The wholesale cost of power – the product of energy consumption (load) and price	\$2.7 billion	\$2.5 billion
Total		\$3.7 billion	

6.2 Other Economic Effects

6.2.1 Long-Term Effects Related to Land Use Patterns

The Project will not affect existing land use patterns in New York. The Cable will be entirely submarine and underground, with a temporary effect on public roads during construction. Once construction is complete, adjacent land uses will be unchanged.

6.2.2 Community Impacts

Community impacts of the Project will be positive. The Converter Station located in the Town of Huntington and the Towns through which the Cable Route passes will be subject to significant property taxes or Payment In Lieu Of Tax (PILOT) agreements. All construction activities will be performed in accordance with Article VII provisions and permit requirements and coordinated with local building and highway departments. Construction related noise and traffic disruptions will be controlled and will be temporary. Once construction is complete, the Project will pose negligible impacts on the public. In addition to the \$3.7 billion in production and load payment benefits identified in Section 6.1, The Project will create long-term economic benefits for New York through taxes, fees, jobs, and other payments.

6.2.3 General Economic Impacts

Recent studies have shown major transmission investments produce a significant positive impact, directly and indirectly, on job creation and economic activity. As was noted by the Energy Highway Task Force, \$1 billion worth of transmission investment has been found to be worth 13,000 FTE years of employment and \$2.4 billion in total economic activity and through the “multiplier effect” of stimulating products and services to meet the demands created by increased employment.

6.2.4 Short-Term Effects

The workforce for Project construction is expected to be recruited from the available labor supply on Long Island and will not result in significant relocation of personnel. Salaries and wages can be expected to be used in part for personal purchases (food, lodging, fuel, etc.) in the immediate areas

during the construction period. Some project-related expenditures for construction activities, materials, equipment, and salaries will also provide temporary revenues to the local and state economy through the payment of income, and sales and use taxes.

Workforce needs will be concentrated in the construction of the Converter Station in the Town of Huntington. The peak labor force for Long Island construction activities, which includes construction crews, inspection personnel, design and engineering personnel, supervision and senior management for the Cable Systems and the New York Converter Station is estimated at 350 – 400 workers.

The Project will not significantly affect housing, roads, community services, or schools in the area.