

## **7.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY**

The proposed Project will have significant, long-term beneficial effects on the use and conservation of energy resources. The operating Project will have the capability to deliver approximately 200 MW at the point of interconnection to the electricity grid and is anticipated to generate over 550,000 MWhr of electricity per annum without the requirements to produce, transport, store, or burn any fossil fuel in the process, and without the production of any air or water pollutants or greenhouse gasses. This is enough electricity to support approximately 67,000 homes in New York State (on an average annual basis). Some of the principle benefits of the Project are in accordance with the 2002 State Energy Plan (New York State Planning Board, 2002), namely:

- "Stimulating sustainable economic growth"
- "Increasing energy diversity...including renewable-based energy"
- "Promoting and achieving a cleaner and healthier environment"

The Project will add to and diversify the state's sources of power generation and over the long term is expected to displace other forms of less desirable sources of electricity generation, such as expensive natural gas or oil, coal or imports. A study commissioned by NYSERDA (The Effects of Integrating Wind Power on Transmission System Planning, Reliability and Operations, February 2005, the "NYSERDA Report") concludes based on load and wind profiles from 2001 and 2002 that 65% of the electricity displaced by wind generation would come from natural gas, 15% from coals, 10% from oil and 10% from imports.

In addition to the environmental benefits of wind generation above, the NYSERDA Report also found that, using state-of-the-art forecasting, 3000MW of wind energy will result in total annual New York wholesale electricity market variable cost reductions of over \$400million per annum. Of this total, the Project would be responsible for almost \$30 million annual benefits to energy consumers. The NYSERDA Report further found that, contrary to popular belief, no change to spinning reserve requirements are necessary (i.e., it is not necessary to start up additional coal generation to back up wind).

On September 24, 2004, the New York Public Service Commission issued an Order approving a Retail Renewable Portfolio Standard (RPS) Policy. That Order encapsulated the Commission's renewable energy policy and outlined targets and procedures to achieve an increase in renewable energy used in the State to at least 25% by the year 2013. The Project will be a part of the state in achieving the goals of the Renewable Portfolio Standard.

The Project will also facilitate compliance with Executive Order 111, issued by Governor George Pataki on June 10, 2001, which requires all New York State agencies to purchase 10% of their electricity from renewable sources by 2005 and 20% by 2010.