

GRANITE STATE HYDROPOWER ASSOCIATION

Energy Stakeholder Forum

Supplemental Comments

June 27, 2006

EXHIBIT 5

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# New Hampshire Energy Plan



**Governor's Office**  
*of*  
**Energy and Community Services**

**November 2002**

*Pursuant to  
NH Chapter 121 (2001)*

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### *Wood Energy*

New Hampshire has eight wood-fired power plants that can produce electricity, five of which are presently operating. The future of these five plants is uncertain after their rate orders (contracts mandated by statute that guarantee purchase of their power at predetermined prices) or other agreements to operate expire. Independent analysis of the economics of these facilities completed for the New Hampshire Department of Resources & Economic Development in 2001, as well as market experience with facilities following termination of rate orders, show that these facilities do not operate economically in a fully competitive environment. The five operating wood-fired power plants have a combined output of approximately 77.6 MW, and consume around 1.1 million green tons of wood each year. Wood-fired power plants, and the possible benefits of retaining them, are discussed in further detail in Section 8.3.1 below.

### *Energy from Municipal Solid Waste*

New Hampshire residences and businesses generate roughly 1.4 million tons of solid waste annually. A small portion of this waste is used to fuel two trash-fired energy facilities, one in Claremont and one in Penacook. Both of these facilities are owned and operated by Wheelabrator Technologies, Inc. of Hampton. The facility in Claremont produces roughly 4 MW of power, using almost 70,000 tons of municipal solid waste annually. The facility in Penacook is larger, generating 12.8 MW of electricity through the combustion of almost 175,000 tons of waste each year. Both of these plants operate under rate orders, which guarantee a fixed price for electricity output. These rate orders expire in 2007.

### *Hydroelectric*

Hydroelectric generation plays an important role in our state's energy diversity, with nine utility owned and 27 independently owned hydroelectric generating sites in the state. In 1999, their 440 MW of capacity represented 15.5% of the state's total generating capacity. However, because hydroelectric facilities generate only when water is available, their actual generation is less than their total capacity.

Hydroelectric generation produces electricity using a free renewable fuel source, and has no emissions. Hydroelectric generation does raise concerns about impacts upon both aquatic and terrestrial ecosystems from change in stream flow and impoundments. Based upon existing dams and the lengthy environmental review process that would be required for siting a new project, it is unlikely that many (if any) new sites for hydroelectric generation will be developed in New Hampshire's foreseeable future. Nonetheless, the current hydro facilities in the state are an important part of our overall diverse energy portfolio, and policies that impact them should take this into consideration.

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