Washington State
House of Representatives
Office of Program Research

BILL ANALYSIS

Environment Committee

HB 2180

Brief Description: Regarding the use of an energy storage facility to meet annual targets under RCW 19.285.040.

Sponsors: Representatives Morris, Eddy and Upthegrove.

Brief Summary of Bill

- Allows electricity dispatched from an energy storage facility to an electrical transmission or distribution system to count at 2.5 times the facility's output under Initiative 937 (I-937) if the facility is capable of storing energy during off-peak hours and dispatching it during peak hours.

Hearing Date: 1/27/12

Staff: Kara Durbin (786-7133).

Background:

Energy Storage.

Energy storage technologies use forms of energy such as chemical, kinetic, or potential energy to store energy that can be converted to electricity at a later time. Energy storage technologies include various types of batteries, flywheels, electrochemical capacitors, compressed air storage, thermal storage devices, and pumped hydroelectric power. Energy storage can provide several potential benefits to the electrical system: (1) supplying peak electricity demand by using electricity generated during periods of lower demand; (2) balancing electricity supply and demand fluctuations over a period of seconds and minutes; and (3) deferring expansions of electric grid capacity.

The Energy Independence Act.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

In 2006 the voters approved the Energy Independence Act, also known as Initiative 937 (Initiative 937). Initiative 937 requires certain electric utilities with 25,000 or more customers to meet targets for the use of renewable energy resources and energy conservation.

Renewable Resources Targets.

Each qualifying utility must use eligible renewable resources or acquire equivalent renewable energy credits, or a combination of both, to meet the following annual targets:

- at least 3 percent of its load by January 1, 2012, and each year thereafter through December 31, 2015;
- at least 9 percent of its load by January 1, 2016, and each year thereafter through December 31, 2019; and
- at least 15 percent of its load by January 1, 2020, and each year thereafter.

Eligible Renewable Resource.

"Eligible renewable resource" includes: (1) wind; (2) solar; (3) geothermal energy; (4) landfill and sewage gas; (5) wave and tidal power; and (6) certain biomass and biodiesel fuels. Biomass is classified as an eligible renewable resource if it is derived from animal waste and solid organic fuels from wood, forest, or field residues and dedicated energy crops. Biomass derived from the following is not considered an eligible renewable resource: wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chromearsenic; black liquor by-product from paper production; wood from old growth forests; and municipal solid waste.

Electricity produced from an eligible renewable resource must be generated in a facility that started operating after March 31, 1999. The facility must either be located in the Pacific Northwest or the electricity from the facility must be delivered into the state on a real-time basis. Incremental electricity produced from efficiency improvements at hydropower facilities owned by qualifying utilities is also an eligible renewable resource if the improvements were completed after March 31, 1999.

Additional credit toward meeting the targets is provided for investments in distributed generation facilities and for investments in facilities that use state-approved apprenticeship programs during construction. Qualifying utilities may count distributed generation at double the facility's output and the use of apprenticeship programs at 1-2/10 times the renewable resources or renewable energy credit's base value. "Distributed generation" means an eligible renewable resource where the generation facility or any integrated cluster of such facilities has a generating capacity of not more than five megawatts.

Greenhouse Gases Emissions Performance Standard.

The Greenhouse Gases (GHG) emissions performance standard for all baseload electric generation for which electric utilities enter into long-term financial commitments is the lower of:

- 1,100 pounds of GHG per megawatt-hour; or
- the average available GHG emissions output as updated by the Department of Commerce.

All baseload electric generation that begins operation after June 30, 2008, and is located in Washington, must comply with the performance standard. The following facilities are deemed to be in compliance with the performance standard:

- all baseload electric generation facilities in operation as of June 30, 2008, until they are the subject of long-term financial commitments;
- all electric generation facilities or power plants powered exclusively by renewable resources; and
- all cogeneration facilities in the state that are fueled by natural gas or waste gas in operation as of June 30, 2008, until they are the subject of a new ownership interest or are upgraded.

Summary of Bill:

A qualifying utility may count electricity dispatched to an electrical transmission or distribution system from an energy storage facility at 2.5 times the facility's output if the energy storage facility is capable of: (1) storing energy from an eligible renewable resource during off-peak hours; and (2) dispatching the energy as electricity to an electrical transmission or distribution system during peak hours.

An "energy storage facility" is defined as a commercially available technology that is capable of absorbing energy, storing it for a period of time, and thereafter dispatching the energy as electricity to an electrical transmission or distribution system. However, an energy storage facility may not exceed the state's greenhouse gas emissions performance standards when storing electricity from an eligible renewable resource or injecting electricity from the energy storage facility into an electrical transmission or distribution system.

Appropriation: None.

Fiscal Note: Not requested.

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.