Washington State
House of Representatives
Office of Program Research

BILL ANALYSIS

Technology, Energy & Communications Committee

SSB 6192

Brief Description: Requiring a feasibility study of the viability of a solar electric generating facility.

Sponsors: Senate Committee on Water, Energy & Environment (originally sponsored by Senators Poulsen, Rockefeller, Rasmussen and Fraser).

Brief Summary of Substitute Bill

- Requires a feasibility study of the viability of a large-scale solar electric generating facility.

Hearing Date: 2/16/06.

Staff: Scott Richards (786-7156).

Background:

A solar energy system is any device that relies upon direct sunlight as an energy source for use in the generation of electricity.

The largest solar electric facility in the world is located in Muhlhausen, Germany, according to pvresources.com. Dedicated in 2005, the Bavaria Solarpark is comprised of a total of 57,600 photovoltaic panels and has 10 megawatt (MW) of total generating capacity. In early February, the companies Powered by Renewables and SunEdison announced that they will develop a 18 MW solar photovoltaic project in Nevada, making it the world's largest solar photovoltaic project.

Thin Film Solar Cells
Thin film solar cells are a layer of semiconductor material a few microns or less in thickness, used to make solar photovoltaic cells. Most thin film technologies are based principally on copper, indium and selenium (CIS). Although thin film solar cells typically produce a lower total energy output than silicon-based crystalline solar cells, they are cheaper to manufacture and do not rely on silicon, which is experiencing a worldwide shortage. While less efficient than silicon-based crystalline solar cells, thin film efficiencies are increasing. In 2005, one manufacturer announced its CIS thin film technology had achieved 13.5 percent efficiency, a new world record for thin-film.

Northwest Solar Center

The Northwest Solar Center (Center) is a project of Washington State University that manages solar energy activities such as the joint Washington State and Department of Energy Million Solar Roofs Project and the state off-grid, plug and play solar rebate program. Also, the Center helped develop the White Bluffs Solar Project (38 kilowatts DC/29.5 kilowatts AC) at Hanford, the largest public solar project in the Northwest. The White Bluffs Solar Project is owned and operated by Energy Northwest, Washington's sole joint operating agency and began generating electricity in 2002.

Summary of Bill:

Northwest Solar Center
The Center shall conduct a feasibility assessment of the economic and technical viability of building a large scale, public demonstration, solar electric generating facility.

Feasibility Assessment
The assessment should include the facility's economic viability, costs and benefits to Washington, including job creation and environmental impacts, and its impact on the region's energy.

In conducting this assessment, the Center shall make the following assumptions about the facility:

- it will have a minimum capacity in the range of 300 MW;
- it will be constructed through a design build contract that requires the recipient to locate a solar thin film manufacturing facility in Washington;
- it will be developed by a public joint operating agency;
- it will be sited in a county with an existing large solar electric generating facility;
- it will provide maximum production and deliver the power during irrigation and air conditioning peaks;
- the construction of it will drive the market and result in significant cost reductions;
- the state will offer incentives to reduce the costs of bonding the project, such as state loan guarantees; and
- it will be expected to recover the cost of investment over the life of the project.

Stakeholder Involvement
In conducting this assessment, the Center must assemble and work with a team representing state and federal energy agencies and laboratories, public utility districts, rural electric cooperatives, the Northwest Power and Conservation Council, the solar industry, local manufacturers and other stakeholders as determined essential by the Center.

Reporting Requirements
The assessment must be completed and a report summarizing the findings prepared and delivered to the energy and fiscal committees of the Legislature by December 15, 2006.

Appropriation: None.

Fiscal Note: Available for original bill.

Effective Date: The bill takes effect 90 days after adjournment of session in which bill is passed. However, the bill is null and void unless funded in the budget.