

SENATE BILL REPORT

SHB 1114

As Reported by Senate Committee On:
Environment, Energy & Technology, March 16, 2021

Title: An act relating to encouraging utility mitigation of urban heat island effects.

Brief Description: Encouraging utility mitigation of urban heat island effects.

Sponsors: House Committee on Environment & Energy (originally sponsored by Representatives Dye and Ramel).

Brief History: Passed House: 2/25/21, 98-0.

Committee Activity: Environment, Energy & Technology: 3/11/21, 3/16/21 [DP].

Brief Summary of Bill

- Encourages municipal electric utilities and public utility districts (PUDs) to assist electric customers in the acquisition and installation of materials and equipment for the conservation of energy, including cool roof programs and tree plantings.
- Establishes a statewide policy that any tree planting program that a municipal electric utility, PUD, or investor-owned utility (IOU) engages in as part of an energy conservation program should accomplish specific goals, including energy reduction.
- Allows municipal utilities, PUDs, and IOUs to use voluntary donations from their customers for urban forestry to fund a tree planting program that accomplishes the goals of the statewide policy.
- Authorizes the Utilities and Transportation Commission to adopt a policy allowing an incentive rate of return on investment in IOUs' tree planting and cool roof programs.

SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

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

Majority Report: Do pass.

Signed by Senators Carlyle, Chair; Lovelett, Vice Chair; Ericksen, Ranking Member; Brown, Das, Fortunato, Hobbs, Lias, Nguyen, Sheldon, Short, Stanford and Wellman.

Staff: Kimberly Cushing (786-7421)

Background: Urban Heat Islands. According to the United States Environmental Protection Agency, heat islands are urbanized areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies. Daytime temperatures in urban areas are about 1 to 7 degrees Fahrenheit higher than temperatures in outlying areas and nighttime temperatures are about 2 to 5 degrees Fahrenheit higher. Heat islands increase both overall electricity demand, as well as peak energy demand, when the demand for air-conditioning rises.

Cool Roofs. According to the United States Department of Energy, a cool roof is one that has been designed to reflect more sunlight and absorb less heat than a standard roof. Cool roofs can be made of a highly reflective type of paint, a sheet covering, or highly reflective tiles or shingles. Standard roofs can reach temperatures of 150 degrees Fahrenheit or more in the summer. Under the same conditions, a cool roof could stay more than 50 degrees Fahrenheit cooler and save energy by reducing demand for air-conditioning.

The Evergreen Communities Recognition Program. Cities and counties may pursue recognition as an Evergreen Community. The Department of Commerce (Commerce) is responsible for identifying the criteria necessary for this designation, with applications approved through the Department of Natural Resources (DNR). Designated Evergreen Communities may use logos and signage developed for that purpose by Commerce. In addition, an Evergreen Community designation is a factor in evaluating certain state grant program applications by local governments.

Electric Utilities and Urban Forestry. Municipal utilities, public utility districts (PUDs), and investor-owned utilities are encouraged to provide information to their customers regarding landscaping that includes tree planting for energy conservation. Electric utilities are encouraged to request voluntary donations from their retail electric customers for urban forestry. The use of appropriate tree plantings for energy conservation is encouraged as part of consumer-owned electric utilities' energy conservation programs.

The Washington Environmental Health Disparities Map. The Washington Environmental Health Disparities (EHD) Map is an interactive mapping tool that compares communities across the state for environmental health disparities. It is part of the Washington Tracking Network (WTN).

Environmental Justice Task Force Report. A proviso in the 2019-2021 biennial operating budget directed the Governor's Interagency Council on Health Disparities to convene and

staff an Environmental Justice Task Force. The task force was directed to recommend strategies for incorporating environmental justice principles into future state agency actions across Washington.

The task force report, published in fall 2020, includes guidance for using the EHD map to identify communities that are highly impacted by environmental justice issues with current demographic data, and provides specific recommendations for incorporating the WTN mapping tools and EHD data in agency activities.

Summary of Bill: Consumer-Owned Utilities. The Legislature encourages any municipal electric utility or PUD to assist its customers in the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy, including for a utility cool roof program. The use of appropriate tree plantings for energy conservation is highly encouraged as part of these programs.

It is a statewide policy that any municipal electric utility or PUD tree planting program as part of an energy conservation program, where energy reduction is a goal, should accomplish the following:

- reduce the peak-load demand for electricity in residential and commercial business areas during the summer months through direct shading of buildings provided by strategically planted trees;
- reduce wintertime demand for energy in residential areas by blocking cold winds from reaching homes, which lowers interior temperatures and drives heating demand;
- protect public health by removing harmful pollution from the air and prioritize in communities with environmental health disparities;
- use the natural photosynthetic and transpiration process of trees to lower ambient temperatures and absorb carbon dioxide;
- lower electric bills for residential and commercial business ratepayers by limiting electricity consumption without reducing benefits;
- relieve financial and demand pressure on the utility that stems from large peak-load electricity demand;
- protect water quality and public health by reducing and cooling stormwater runoff and keeping harmful pollutants from entering waterways, with special attention given to waterways vital for preserving threatened and endangered salmon;
- ensure trees are planted in locations that limit the amount of public funding needed to maintain public and electric infrastructure;
- measure program performance in terms of the estimated present value benefit per tree planted and equitable and accessible community engagement consistent with the EHD map and community engagement plan guidance in the Environmental Justice Task Force's final report;
- give special consideration to achieving environmental justice in goals and policies, avoid creating or worsening environmental health disparities, and make use of the EHD map to help guide engagement and actions; and
- coordinate with DNR's Urban and Community Forestry Program efforts to identify

areas of need related to urban tree canopy and to provide technical assistance and capacity building to encourage urban tree canopy.

Municipal electric utilities and PUDs may use voluntary donations for urban forestry solicited from electric customers to fund a tree planting program for energy conservation that accomplishes the goals of the statewide policy.

Investor-Owned Utilities. The Utilities and Transportation Commission shall consider and may adopt a policy allowing an incentive rate of return on investment in investor-owned utilities' (IOUs') tree planting programs and cool roof programs to improve the efficiency of energy end use. Any tree planting program in which an IOU seeks a rate of return on investment, should accomplish the same goals as specified for consumer-owned utilities.

IOUs may use voluntary donations for urban forestry solicited from electric customers to fund a tree planting program for energy conservation that accomplishes the goals of the statewide policy.

Appropriation: None.

Fiscal Note: Available.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony: PRO: Seattle is ranked among the top ten cities for the urban heat island effect in the country. The built space absorbs and retains heat. Storm water running out of the city is warmer than from rural areas. The west coast cities' wall of heat contributes to climate change. This bill is modeled after the successful tree planting and cool roof programs implemented by Sacramento Municipal Utility District since 1990. A long-term effect is improvement in the region's air quality. The bill uses the EHD map to help historically disadvantaged communities reduce energy bills. Utilities can get a reduction in energy as well. GHG emissions can be reduced by planting a tree in an appropriate location. The reflective roof program has reduced cooling loads in summer. Environmental stewardship is one of the greatest challenges facing public power. Cities will need to prioritize resilience. Nature-based solutions will provide resilience.

Persons Testifying: PRO: Representative Dye, Prime Sponsor.

Persons Signed In To Testify But Not Testifying: No one.