H-0266.1

HOUSE BILL 1114

State of Washington 67th Legislature 2021 Regular Session

By Representative Dye

Prefiled 01/08/21.

AN ACT Relating to encouraging utility mitigation of urban heat island effects; amending RCW 35.92.355, 35.92.390, 54.16.400, 80.28.260, and 80.28.300; adding a new section to chapter 54.16 RCW; and creating a new section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec. 1.** (1) The legislature acknowledges the scientific consensus that there is a well-documented problem of urban heat islands. The buildings, roads, and infrastructure that comprise urban environments make cities hotter than surrounding rural areas. Concrete, asphalt, and shingled roofs can get much hotter than vegetated areas, causing surface temperatures in cities to be several degrees hotter in the midday than in rural areas. At night, these same materials release heat more slowly, keeping urban air temperatures higher than overnight temperatures in most rural areas. Cities tend to have fewer trees and less vegetation, resulting in a deficit of shade to keep areas cool. Cities also have more industrial heat sources, including cars and air conditioners.

(2) Cities tend to have many more extremely hot days each year, on average, than nearby rural areas. According to one recent study, over the past 10 years, cities had an average of at least eight more days over 90 degrees Fahrenheit each summer, compared to nearby rural

areas. The difference between urban and surrounding rural temperatures is also widening; temperatures have been rising in urban areas faster than in the surrounding rural areas since 1970.

(3) The legislature finds that the phenomenon of urban heat island impact is detrimental to several significant and long-standing state policy goals, including the promotion of human health, energy conservation, and preserving the water quality that sustains salmon. It is well understood that higher urban summer temperatures pose serious human health risks and that these health risks are inequitably distributed. Hotter urban summers can lead to increased energy demands to cool buildings, which runs counter to long-standing state policy of promoting energy conservation. Studies have also documented the impact of urban heat islands on the temperature of streams. Streams draining through urban heat islands tend to be hotter than rural and forested streams because of warmer urban air and ground temperatures, paved surfaces, and decreased riparian canopy. Urban infrastructure routes runoff over hot impervious surfaces and through storm drains directly into streams and can lead to rapid, dramatic increases in temperature, which can be lethal for aquatic life.

(4) The legislature recognizes that this problem is a clear and present danger that impacts the environment of our state. The Pacific Northwest, with its reputation for rain and temperate weather, is not immune to urban heat islands. Seattle is among the top 10 cities for most intense urban heat island effect, with greater than four degrees Fahrenheit difference between the city and nearby rural areas. Portland, Oregon was among the top 10 cities with the most intense summer nighttime heat island over the past 10 years.

(5) The legislature finds that organized shade tree and cool roof programs offered by utilities can reduce the amount of energy required to cool buildings. Energy conservation results in carbon dioxide reduction in areas where fossil fuels are part of the fuel mix that supplies the electricity. Secondary benefits of shade tree and cool roof programs are the mitigation of the urban heat island effect. Other nonenergy benefits include improvement in local and regional air quality, enhanced neighborhood aesthetics, and improved property values for program participants.

(6) From the utility perspective, incentives to implement tree planting programs represents a type of demand side management program that has a tangible economic value to the utility. This value can be

quantified based on avoided supply costs of energy and capacity during high cost of summer peak load periods, or the decrease in supply costs to the utility due to reduced electrical loads.

(7) From the customers' perspective, these programs save money by reducing average summertime electricity bills. In 2008, researchers showed that the Sacramento municipal utility district tree program reduced summertime electricity bills by an average of $25.16. Additionally, the utility's commercial cool roof program provided average energy cooling load savings of 20 percent.

(8) In consideration of the environmental, public, and customer benefits, the legislature intends to encourage policies for the state's utilities that will promote shade tree and cool roof programs to facilitate energy conservation and mitigate urban heat island impacts.

Sec. 2. RCW 35.92.355 and 1993 c 204 s 5 are each amended to read as follows:

The conservation of energy in all forms and by every possible means is found and declared to be a public purpose of highest priority. The legislature further finds and declares that all municipal corporations, quasi municipal corporations, and other political subdivisions of the state which are engaged in the generation, sale, or distribution of energy should be granted the authority to develop and carry out programs which will conserve resources, reduce waste, and encourage more efficient use of energy by consumers.

In order to establish the most effective statewide program for energy conservation, the legislature hereby encourages any company, corporation, or association engaged in selling or furnishing utility services to assist their customers in the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy <u>including, but not limited to, materials and equipment installed as part of a utility cool roof program</u>. The use of appropriate tree plantings for energy conservation is <u>highly</u> encouraged as part of these programs. <u>It is the policy of the state of Washington that any tree planting program engaged in by a municipal utility as part of a broader energy conservation program under this section should accomplish the following:</u>

(1) 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;

(2) Reduce wintertime demand for energy in residential areas by blocking cold winds from reaching homes, which lowers interior temperatures and drives heating demand;

(3) Protect public health by removing harmful pollution from the air;

(4) Utilize the natural photosynthetic and transpiration process of trees to lower ambient temperatures and absorb carbon dioxide;

(5) Lower electric bills for residential and commercial business ratepayers by limiting electricity consumption without reducing benefits;

(6) Relieve financial and demand pressure on the utility that stems from large peak-load electricity demand;

(7) 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 the preservation of threatened and endangered salmon;

(8) Ensure that trees are planted in locations that limit the amount of public funding needed to maintain public and electric infrastructure; and

(9) Measure program performance in terms of the estimated present value benefit per tree planted.

Sec. 3. RCW 35.92.390 and 2008 c 299 s 19 are each amended to read as follows:

(1) Municipal utilities under this chapter are highly encouraged to provide information to their customers regarding landscaping that includes tree planting for energy conservation.

(2)(a) Municipal utilities under this chapter are highly encouraged to request voluntary donations from their customers for the purposes of urban forestry. The request may be in the form of a check-off on the billing statement or other form of request for a voluntary donation.

(b) Voluntary donations collected by municipal utilities under this section may be used by the municipal utility to:

(i) Support the development and implementation of evergreen community ordinances, as that term is defined in RCW 35.105.010, for cities, towns, or counties within their service areas; ((~~or~~))

(ii) Complete projects consistent with the model evergreen community management plans and ordinances developed under RCW 35.105.050; or

(iii) Fund a tree planting program for energy conservation that accomplishes the goals established under RCW 35.92.355.

(c) Donations received under this section do not contribute to the gross income of a light and power business or gas distribution business under chapter 82.16 RCW.

NEW SECTION. **Sec. 4.** A new section is added to chapter 54.16 RCW to read as follows:

The legislature encourages any public utility district to assist their customers in the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy including, but not limited to, materials and equipment installed as part of a utility cool roof program. The use of appropriate tree plantings for energy conservation is highly encouraged as part of these programs. It is the policy of the state of Washington that any tree planting program engaged in by a public utility district as part of a broader energy conservation program under this chapter should accomplish the following:

(1) 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;

(2) Reduce wintertime demand for energy in residential areas by blocking cold winds from reaching homes, which lowers interior temperatures and drives heating demand;

(3) Protect public health by removing harmful pollution from the air;

(4) Utilize the natural photosynthetic and transpiration process of trees to lower ambient temperatures and absorb carbon dioxide;

(5) Lower electric bills for residential and commercial business ratepayers by limiting electricity consumption without reducing benefits;

(6) Relieve financial and demand pressure on the utility that stems from large peak-load electricity demand;

(7) 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 the preservation of threatened and endangered salmon;

(8) Ensure that trees are planted in locations that limit the amount of public funding needed to maintain public and electric infrastructure; and

(9) Measure program performance in terms of the estimated present value benefit per tree planted.

Sec. 5. RCW 54.16.400 and 2008 c 299 s 22 are each amended to read as follows:

(1) Public utility districts may request voluntary donations from their customers for the purposes of urban forestry. The request may be in the form of a check-off on the billing statement or other form of a request for a voluntary donation.

(2) Voluntary donations collected by public utility districts under this section may be used by the public utility district to:

(a) Support the development and implementation of evergreen community ordinances, as that term is defined in RCW 35.105.010, for cities, towns, or counties within their service areas; ((~~or~~))

(b) Complete projects consistent with the model evergreen community management plans and ordinances developed under RCW 35.105.050; or

(c) Fund a tree planting program for energy conservation that accomplishes the goals established under section 4 of this act.

(3) Donations received under this section do not contribute to the gross income of a light and power business or gas distribution business under chapter 82.16 RCW.

Sec. 6. RCW 80.28.260 and 1996 c 186 s 520 are each amended to read as follows:

(1) The commission shall adopt a policy allowing an incentive rate of return on investment ((~~(a) for payments made under RCW 19.27A.035 and (b)~~)) for programs that improve the efficiency of energy end use if priority is given to senior citizens and low-income citizens in the course of carrying out such programs. The incentive rate of return on investments set forth in this subsection is established by adding an increment of two percent to the rate of return on common equity permitted on the company's other investments.

(2) The commission shall consider and may adopt a policy allowing an incentive rate of return on investment in additional programs to improve the efficiency of energy end use including, but not limited to, tree planting programs and cool roof programs, or other incentive

policies to encourage utility investment in such programs. Any tree planting program for which an electrical company seeks an incentive rate of return on investment under this subsection (2) should accomplish the following:

(a) 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;

(b) Reduce wintertime demand for energy in residential areas by blocking cold winds from reaching homes, which lowers interior temperatures and drives heating demand;

(c) Protect public health by removing harmful pollution from the air;

(d) Utilize the natural photosynthetic and transpiration process of trees to lower ambient temperatures and absorb carbon dioxide;

(e) Lower electric bills for residential and commercial business ratepayers by limiting electricity consumption without reducing benefits;

(f) Relieve financial and demand pressure on the utility that stems from large peak-load electricity demand;

(g) 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 the preservation of threatened and endangered salmon;

(h) Ensure that trees are planted in locations that limit the amount of public funding needed to maintain public and electric infrastructure; and

(i) Measure program performance in terms of the estimated present value benefit per tree planted.

(3) The commission shall consider and may adopt other policies to protect a company from a reduction of short-term earnings that may be a direct result of utility programs to increase the efficiency of energy use. These policies may include allowing a periodic rate adjustment for investments in end use efficiency or allowing changes in price structure designed to produce additional new revenue.

Sec. 7. RCW 80.28.300 and 2008 c 299 s 21 are each amended to read as follows:

(1) Gas companies and electrical companies under this chapter are highly encouraged to provide information to their customers regarding landscaping that includes tree planting for energy conservation.

(2)(a) Gas companies and electrical companies under this chapter may request voluntary donations from their customers for the purposes of urban forestry. The request may be in the form of a check-off on the billing statement or other form of a request for a voluntary donation.

(b) Voluntary donations collected by gas companies and electrical companies under this section may be used by the gas companies and electrical companies to:

(i) Support the development and implementation of evergreen community ordinances, as that term is defined in RCW 35.105.010, for cities, towns, or counties within their service areas; ((~~or~~))

(ii) Complete projects consistent with the model evergreen community management plans and ordinances developed under RCW 35.105.050; or

(iii) Fund a tree planting program for energy conservation that accomplishes the goals established under RCW 80.28.260(2) (a) through (i).

(c) Donations received under this section do not contribute to the gross income of a light and power business or gas distribution business under chapter 82.16 RCW.

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