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**SENATE BILL 6622**

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**State of Washington 66th Legislature 2020 Regular Session**

**By** Senators Das, Lovelett, Rolfes, Nguyen, Cleveland, Carlyle, Hobbs, Frockt, Liias, Keiser, Stanford, Randall, Wellman, Salomon, Saldaña, Darneille, Wilson, C., Kuderer, Rivers, Hawkins, Van De Wege, and Hunt

AN ACT Relating to establishing a comprehensive, statewide photovoltaic module recovery, reuse, recycling, and end-of-life program; amending RCW 70.355.010; and creating new sections.

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

NEW SECTION. **Sec.**  (1) The legislature finds that the deployment of solar energy generation in the state reduces greenhouse gas emissions and provides diversity in clean electric generation. One way that the state can encourage deployment of solar photovoltaic modules is to encourage the sale of the high efficiency photovoltaic modules.

(2) With new manufacturing processes incorporated by the industry over the last twenty years, many hazardous material inputs into the module manufacturing processes have been minimized or completely removed, while useful lives and energy production levels have been extended and enhanced, leading to useful lives of photovoltaic modules of fifty years or more.

(3) The legislature finds that the stewardship program recently enacted in chapter 70.355 RCW has created uncertainty for manufacturers who may cease to sell modules in the state. Furthermore, the stewardship program addresses only small system modules sold in the state after July 1, 2017. Modules sold before July 1, 2017, will still need to be recycled or disposed of and are expected to enter the waste stream earlier, and initially at higher volumes than modules sold after July 1, 2017. The absence of any program addressing the pre-2017 modules would lead to at least two different module collection and end-of-life programs operating in the state, one a manufacturer financed product stewardship program for modules sold after July 1, 2017, and one or more as yet unknown, unfunded collection and disposal systems for modules sold before July 1, 2017, and all utility scale modules.

(4) With the substantial increase in solar energy generation deployment over the last decade throughout the country, multiple studies are now being conducted on the life cycle and end-of-life processes of photovoltaic modules. Those studies are analyzing and recommending best practices for collection, recovery, reuse, recycling, processing of modules, and ultimate disposal of any remaining residual materials. The legislature finds that the state could benefit from investing the time and effort to review these studies by creating a task force of experts that obtains input on current and potential future manufacturing materials and processes from module manufacturers and recommends a comprehensive, statewide, environmentally friendly, and cost-effective program, and further has the time to do so before any significant amounts of modules requiring end-of-life processing enter the waste stream.

NEW SECTION. **Sec.**  (1) By July 1, 2020, the director of the department of ecology must appoint a photovoltaic module recovery, reuse, and recycling task force to review and provide recommendations in a final report on potential methodologies for the management of end-of-life photovoltaic modules deployed in the state. The task force's report is due to the legislature by December 1, 2021.

(2) The director of the department of ecology shall convene a photovoltaic module recovery, reuse, and recycling task force. The duties of the task force include, but are not limited to:

(a) Obtaining and reviewing existing data from the Washington State University extension energy program pertaining to the manufacturer, location by zip code, in-service date, and estimated volumes of modules deployed under the state's renewable energy cost recovery incentive program established under RCW 82.16.165;

(b) Obtaining from manufacturers or existing studies the expected economically productive life cycle of various types of photovoltaic modules currently in use in the state;

(c) Obtaining from manufacturers and other sources the past, present, and potential future material and components of photovoltaic modules sold in or into the state. The material list must identify recyclable materials, rare earth elements, and materials that exhibit any of the characteristics of hazardous waste identified in 40 C.F.R. Part 261 (2019);

(d) Reviewing product stewardship programs in Canada, the European Union, and other countries;

(e) Identifying in-progress and recently completed studies related to photovoltaic module recycling and end-of-life programs; and

(f) Analyzing and recommending financing mechanisms including advance recovery fees, recycling and disposal fees, and manufacturer-financed product stewardship programs, including the photovoltaic module stewardship and takeback program issued under RCW 70.355.010 as it existed on December 31, 2019.

(3) The task force must submit a report to the legislature by December 1, 2021, in compliance with RCW 43.01.036, that includes the task force's recommendations for the financing and management of the recovery, reuse, and recycling of photovoltaic modules and their components and disposing of the remaining end-of-life residual materials. The report must identify legislation, if any, necessary to implement the recommendations of the report.

(4) The director of the department of ecology must appoint task force members to serve on the task force created in subsection (1) of this section. Task force membership should include, but is not limited to, members representing:

(a) A manufacturer of photovoltaic modules located in the state;

(b) A manufacturer of photovoltaic modules located outside the state;

(c) A national solar industry group;

(d) Solar installers in the state;

(e) A utility scale solar project;

(f) A nonprofit organization with expertise in waste minimization;

(g) A city and a county solid waste program;

(h) Expertise in photovoltaic module recycling;

(i) A community based environmental justice group; and

(j) Other members with expertise in relevant areas to be reviewed by the task force.

(5) The director of the department of ecology or the director's designee shall convene the initial meeting of the task force, at which the task force must elect a chair or cochairs from among its members.

(6) Participation in the task force created in subsection (1) of this section is strictly voluntary and without compensation.

**Sec.**  RCW 70.355.010 and 2017 3rd sp.s. c 36 s 12 are each amended to read as follows:

(1) ((**~~Findings.~~**)) The legislature finds that a convenient, safe, and environmentally sound system for the recycling of photovoltaic modules, minimization of hazardous waste, and recovery of commercially valuable materials must be established. The legislature further finds that the responsibility for this system must be shared among all stakeholders, with manufacturers financing the takeback and recycling system.

(2) ((**~~Definitions.~~**)) For purposes of this section the following definitions apply:

(a) "Consumer electronic device" means any device containing an electronic circuit board that is intended for everyday use by individuals, such as a watch or calculator.

(b) "Department" means the department of ecology.

(c) "Manufacturer" means any person in business or no longer in business but having a successor in interest who, irrespective of the selling technique used, including by means of distance or remote sale:

(i) Manufactures or has manufactured a photovoltaic module under its own brand names for sale in or into this state;

(ii) Assembles or has assembled a photovoltaic module that uses parts manufactured by others for sale in or into this state under the assembler's brand names;

(iii) Resells or has resold in or into this state under its own brand names a photovoltaic module produced by other suppliers, including retail establishments that sell photovoltaic modules under their own brand names;

(iv) Manufactures or has manufactured a cobranded photovoltaic module product for sale in or into this state that carries the name of both the manufacturer and a retailer;

(v) Imports or has imported a photovoltaic module into the United States that is sold in or into this state. However, if the imported photovoltaic module is manufactured by any person with a presence in the United States meeting the criteria of manufacturer under ((~~(a) through (d) [(c)(i) through (iv)]~~)) (c)(i) through (iv) of this subsection, that person is the manufacturer;

(vi) Sells at retail a photovoltaic module acquired from an importer that is the manufacturer and elects to register as the manufacturer for those products; or

(vii) Elects to assume the responsibility and register in lieu of a manufacturer as defined under ((~~(b)[(c)]~~)) (c)(i) through (vi) of this subsection.

(d) "Photovoltaic module" means the smallest nondivisible, environmentally protected assembly of photovoltaic cells or other photovoltaic collector technology and ancillary parts intended to generate electrical power under sunlight, except that "photovoltaic module" does not include a photovoltaic cell that is part of a consumer electronic device for which it provides electricity needed to make the consumer electronic device function. "Photovoltaic module" includes but is not limited to interconnections, terminals, and protective devices such as diodes that:

(i) Are installed on, connected to, or integral with buildings; or

(ii) Are used as components of freestanding, off-grid, power generation systems, such as for powering water pumping stations, electric vehicle charging stations, fencing, street and signage lights, and other commercial or agricultural purposes.

(e) "Rare earth element" means lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, yttrium, or scandium.

(f) "Reuse" means any operation by which a photovoltaic module or a component of a photovoltaic module changes ownership and is used for the same purpose for which it was originally purchased.

(g) "Stewardship plan" means the plan developed by a manufacturer or its designated stewardship organization for a self-directed stewardship program.

(h) "Stewardship program" means the activities conducted by a manufacturer or a stewardship organization to fulfill the requirements of this chapter and implement the activities described in its stewardship plan.

(3) ((**~~Program guidance, review, and approval.~~**)) The department must develop guidance for a photovoltaic module stewardship and takeback program to guide manufacturers in preparing and implementing a self-directed program to ensure the convenient, safe, and environmentally sound takeback and recycling of photovoltaic modules and their components and materials. By January 1, 2018, the department must establish a process to develop guidance for photovoltaic module stewardship plans by working with manufacturers, stewardship organizations, and other stakeholders on the content, review, and approval of stewardship plans. The department's process must be fully implemented and stewardship plan guidance completed by July 1, 2019.

(4) ((**~~Stewardship organization as agent of manufacturer.~~**)) A stewardship organization may be designated to act as an agent on behalf of a manufacturer or manufacturers in operating and implementing the stewardship program required under this chapter. Any stewardship organization that has obtained such designation must provide to the department a list of the manufacturers and brand names that the stewardship organization represents within sixty days of its designation by a manufacturer as its agent, or within sixty days of removal of such designation.

(5) ((**~~Stewardship plans.~~**)) Each manufacturer must prepare and submit a stewardship plan to the department by the later of ((~~January 1, 2020~~)) July 1, 2022, or within thirty days of its first sale of a photovoltaic module in or into the state.

(a) A stewardship plan must, at a minimum:

(i) Describe how manufacturers will finance the takeback and recycling system, and include an adequate funding mechanism to finance the costs of collection, management, and recycling of photovoltaic modules and residuals sold in or into the state by the manufacturer with a mechanism that ensures that photovoltaic modules can be delivered to takeback locations without cost to the last owner or holder;

(ii) Accept all photovoltaic modules sold in or into the state after July 1, 2017;

(iii) Describe how the program will minimize the release of hazardous substances into the environment and maximize the recovery of other components, including rare earth elements and commercially valuable materials;

(iv) Provide for takeback of photovoltaic modules at locations that are within the region of the state in which the photovoltaic modules were used and are as convenient as reasonably practicable, and if no such location within the region of the state exists, include an explanation for the lack of such location;

(v) Identify how relevant stakeholders, including consumers, installers, building demolition firms, and recycling and treatment facilities, will receive information required in order for them to properly dismantle, transport, and treat the end-of-life photovoltaic modules in a manner consistent with the objectives described in (a)(iii) of this subsection;

(vi) Establish performance goals, including a goal for the rate of combined reuse and recycling of collected photovoltaic modules as a percentage of the total weight of photovoltaic modules collected, which rate must be no less than eighty-five percent.

(b) A manufacturer must implement the stewardship plan.

(c) A manufacturer may periodically amend its stewardship plan. The department must approve the amendment if it meets the requirements for plan approval outlined in the department's guidance. When submitting proposed amendments, the manufacturer must include an explanation of why such amendments are necessary.

(6) ((**~~Plan approval.~~**)) The department must approve a stewardship plan if it determines the plan addresses each element outlined in the department's guidance.

(7) ((**~~Annual report.~~**)) (a) Beginning April 1, ((~~2022~~)) 2024, and by April 1st in each subsequent year, a manufacturer, or its designated stewardship organization, must provide to the department a report for the previous calendar year that documents implementation of the plan and assesses achievement of the performance goals established in subsection (5)(a)(vi) of this section.

(b) The report may include any recommendations to the department or the legislature on modifications to the program that would enhance the effectiveness of the program, including management of program costs and mitigation of environmental impacts of photovoltaic modules.

(c) The manufacturer or stewardship organization must post this report on a publicly accessible web site.

(8) ((**~~Enforcement.~~**)) Beginning ((~~January 1, 2021~~)) July 1, 2023, no manufacturer may sell or offer for sale a photovoltaic module in or into the state unless the manufacturer has submitted to the department a stewardship plan and received plan approval. The department must send a written warning to a manufacturer that is not participating in a plan. The written warning must inform the manufacturer that it must submit a plan or participate in a plan within thirty days of the notice. The department may assess a penalty of up to ten thousand dollars for each sale of a photovoltaic module in or into the state that occurs after the initial written warning. A manufacturer may appeal a penalty issued under this section to the superior court of Thurston county within one hundred eighty days of receipt of the notice.

(9) ((**~~Fee.~~**)) The department may collect a flat fee from participating manufacturers to recover costs associated with the plan guidance, review, and approval process described in subsection (3) of this section. Other administrative costs incurred by the department for program implementation activities, including stewardship plan review and approval, enforcement, and any rule making, may be recovered by charging every manufacturer an annual fee calculated by dividing department administrative costs by the manufacturer's pro rata share of the Washington state photovoltaic module sales in the most recent preceding calendar year, based on best available information. The sole purpose of assessing the fees authorized in this subsection is to predictably and adequately fund the department's costs of administering the photovoltaic module recycling program.

(10) ((**~~Account.~~**)) The photovoltaic module recycling account is created in the custody of the state treasurer. All fees collected from manufacturers under this chapter must be deposited in the account. Expenditures from the account may be used only for administering this chapter. Only the director of the department or the director's designee may authorize expenditures from the account. The account is subject to the allotment procedures under chapter 43.88 RCW, but an appropriation is not required for expenditures. Funds in the account may not be diverted for any purpose or activity other than those specified in this section.

(11) ((**~~Rule making.~~**)) The department may adopt rules as necessary for the purpose of implementing, administering, and enforcing this chapter.

(12) ((**~~National program.~~**)) In lieu of preparing a stewardship plan and as provided by subsection (5) of this section, a manufacturer may participate in a national program for the convenient, safe, and environmentally sound takeback and recycling of photovoltaic modules and their components and materials, if substantially equivalent to the intent of the state program. The department may determine substantial equivalence if it determines that the national program adequately addresses and fulfills each of the elements of a stewardship plan outlined in subsection (5)(a) of this section and includes an enforcement mechanism reasonably calculated to ensure a manufacturer's compliance with the national program. Upon issuing a determination of substantial equivalence, the department must notify affected stakeholders including the manufacturer. If the national program is discontinued or the department determines the national program is no longer substantially equivalent to the state program in Washington, the department must notify the manufacturer and the manufacturer must provide a stewardship plan as described in subsection (5)(a) of this section to the department for approval within thirty days of notification.

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