Product Stewardship for Photovoltaic Modules

Section 12 of ESSB 5939

2017 Washington State Solar Summit
October 13, 2017
What is product stewardship?

Product stewardship is an environmental and economic management strategy

- Manufacturers take responsibility for their products at the end-of-life
- Programs involve recycling and/or safe disposal of unwanted products
- Costs are shifted from local governments to the users and producers of the product
- Efficient and cohesive private sector systems are created that are effective in providing and promoting accessible end-of-life management systems for their products
How does product stewardship work?

Cost of program is funded by producers & consumers that purchase the product.
Existing Programs in Washington State

**E-CYCLE Washington**

- Launch: January 1, 2009
- More than 350 collection sites
- Over 337 million lbs. recycled
- More than 125 private-sector jobs created

**COMPUTERS & TVs**

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**LightRecycle Washington**

- Launch: January 1, 2015
- More than 220 collection sites
- Over 2 million lights recycled

**MERCURY-CONTAINING LIGHTS**
Local Programs in Washington State

Established:
- King County
- Snohomish County

Passed and Coming:
- Pierce County
- Kitsap County
There are currently 10 states with "Bottle Bills" (container deposit laws). These systems are highly effective at recovering beverage containers and providing high quality recovered materials to recycling markets that create jobs. Bottle Bills shift responsibility upstream to container producers but differ among states in the roles and responsibilities assigned to manufacturers, distributors, retailers, and state governments.

The map does not include other laws that contribute to the appropriate management of products, such as disposal bans and sales bans on products containing toxic materials, deposit fees that may be redeemed when the consumer recycles the product, policies requiring retailers to collect products for recycling, and policies requiring the purchase of environmentally preferable products.
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Newfoundland

Nova Scotia

New Brunswick

PEI

Quebec

Ontario

Manitoba

Saskatchewan

Alberta

British Columbia

Northwest Territories

Yukon

No regulated programs in Nunavut; Ontario - deposits on wine, liquor and beer only; MB - microwave ovens; Ink cartridges not regulated; Milk containers in BC part of Packaging & Printed Paper.

Compiled by: MGM Management; mckenney@vip.net

April 2017
Packaging EPR in 2000

Note: First EPR Law was in Germany - 1992

Source: Victor Bell, EPI
Packaging EPR in 2015

Source: Victor Bell, EPI
ESSB 5939

Promoting a sustainable, local renewable energy industry through modifying renewable energy system tax incentives and providing guidance for renewable energy system component recycling.

Section 12 (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.
Key Provisions

• Photovoltaic module (PV module) **does not include** cells that are part of consumer electronic device.

• **Does include** those related to buildings as well as free standing generation systems, such as for water pumping stations, electric vehicle charging stations, fencing, street lights, etc.

• Stewardship programs must take back PV modules sold after July 1, 2017.
Dates

Jan. 1, 2018 to July 1, 2019 - Ecology will implement stakeholder process to develop guidance.

Jan. 1, 2020 - Each manufacturer must submit or participate in a plan.
   A stewardship organization may be designated to act as agent of a manufacturer or manufacturers to fulfill obligations.

Jan. 1, 2021 - Only manufacturers participating in a plan can sell their PV modules into Washington.
Stewardship Plans
Section 12 (5) (a)

Must at a minimum:

- Describe how manufacturers will finance cost of collection, management and recycling for modules delivered to take-back locations without cost to the last owner or holder.
- Address hazardous substances and maximizing recovery of components, including rare earth elements.
- Provide take back locations in region of state where modules were used.
- Identify how consumers, installers, building demolition firms, and recycling and treatment facilities will receive information required in order to properly dismantle and recycle modules.
- Establish performance goals.
National Program
Section 12 (12)

• A manufacturer may participate in a national program in lieu of preparing a plan if substantially equivalent to intent of state program.

• Ecology determines if national program fulfills each of elements outlined in Subsection (5) (a)

• Ecology can adopt rules.
Ecology Next Steps

• Creating a stakeholder list.

• Contact Christine Haun at clac461@ecy.wa.gov to be added to the list.

• By Jan. 1, 2018 Ecology will establish process to develop guidance.

• After Jan 1, 2018 will conduct a stakeholder process to develop guidance.
The Opportunity

• Provide a great take back system in Washington.

• Establish a circular economy for solar.

• Lead and help shape a national program.

• Learn from and engage with other stewardship programs in US, Canada and Europe.

• Additional jobs, services and businesses in Washington.

• New processing technology in Washington.
Thank you!

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and
Northwest Product Stewardship Council

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