

INFORMATION ON DEFINITION OF “PRODUCT STEWARDSHIP” AND “PRODUCER RESPONSIBILITY” AND PRODUCT STEWARDSHIP PRINCIPLES

This information is being provided to the Oregon Product Stewardship Stakeholder Group as background information to the group’s various policy discussions and in response to a request by the group to learn more about how different organizations define product stewardship and product stewardship’s guiding principles. This list is not intended to be inclusive but to provide a sampling of definitions and principles currently used by other organizations. This topic was addressed at the group’s February 2010 meeting.

A. **DEFINITIONS:** the following is a listing of how various governments, nonprofits and businesses define product stewardship and producer responsibility.

a. *Product stewardship:*

- Oregon: An environmental management strategy in which all parties involved in the design, production, sale and use of a product take responsibility for minimizing the product’s environmental impact throughout all stages of the product’s life. The greatest responsibility lies with whoever has the most ability to affect the lifecycle environmental impacts of the product.
- Washington: Taking responsibility for the impacts to human health and the natural environment that result from the production, use, and end-of-life management of products.

The greater the ability a party has to influence the life cycle of a product, the greater the degree of that party’s responsibility.

From an environmental perspective it combines the concepts of “sustainable production” and “zero waste.”

Can address economic and social issues as well.

- Maine: Producer’s taking responsibility for managing and reducing the life-cycle impacts of the producer’s product, from product design to end-of-life management.
- Minnesota: All parties involved in designing, manufacturing, selling and using a product take responsibility for environmental impacts at every stage of that products life.
- Product Stewardship Institute: The responsibility for reducing product impacts should be shared among industry (designers, manufacturers, and retailers of products or product components), government, and consumers. The greater the ability an entity has to minimize a product’s life-cycle impacts, the greater is its degree of responsibility, and opportunity, for addressing those impacts. Manufacturers have the greatest ability, and responsibility, to reduce product impacts.
- Northwest Product Stewardship Council: An environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product’s environmental impact throughout all stages of the products’ life cycle.

It is in the best interest of states, local governments, industries, environmental groups, and consumers to reduce the adverse health and environmental impacts of consumer products. To

achieve this result, product stewardship efforts aim to encourage manufacturers and others influencing the life cycle of a product to take increasing responsibility to reduce the impacts of that product - energy and materials consumption, air and water emissions, the amount of toxic materials used to create the product, worker safety, and waste disposal - in product design and in the end-of-life management of the products produced.

- Solid Waste Association of North America (SWANA): A product-centered approach to environmental protection that calls on all those in the product life cycle – designers, manufacturers, retailers, users and waste managers -- to share responsibility and costs for reducing the adverse environmental impacts of products.

From SWANA's specific perspective, product stewardship involves the actions taken to provide for waste management of the product at the end of its useful life. These include:

1. actions to improve the design and manufacture of products to facilitate either their reuse, recycling or disposal, and
2. actions to establish programs to collect, process and reuse or recycle products when they are discarded.

Product stewardship calls on product manufacturers to take on new responsibilities to reduce the adverse impact of their products and to include the costs of reuse, recycling or disposal in the price of the product. However, all participants in a product life cycle including retailers, consumers and waste managers have important roles to play working in cooperation with product manufacturers to develop the most workable and cost-effective solutions. Government, legislators and regulators have the important role of establishing policies and programs to encourage product stewardship.

- British Columbia: A government strategy to place the responsibility for end of life product management on the producer and consumers of a product and not the general taxpayer or local government.

b. *Producer Responsibility*

- British Columbia and Canada: Extended Producer Responsibility (EPR) (formerly referred to as Industry Product Stewardship) is an environmental policy approach in which the producer's responsibility for reducing environmental impact and managing the product is extended across the whole life cycle of the product, from selection of materials and design to its end-of-life.
- Product Policy Institute: Extended Producer Responsibility (EPR), also known as Product Stewardship, is a government strategy to place responsibility for end of life management of products and associated packaging on producers and consumers rather than on taxpayers, ratepayers or local governments.
- Organization for Economic and Cooperative Development (OECD): An environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. An EPR policy is characterised by: (1) the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and (2) the provision of incentives to producers to take into account environmental considerations when designing their products. While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.

- INFORM, Inc.: The extension of the responsibility of producers for the environmental impacts of their products to the entire product life cycle, and especially for their take-back, recycling, and disposal.
- US Environmental Protection Agency: Calls on those in the product life-cycle – manufacturers, retailers, users, and disposers – to share in the responsibility of reducing the impacts of products.

B. Product Stewardship Principles:

➤ Hewlett Packard (HP):

- Create an efficient recycling framework that involves all stakeholders
- Leverage the expertise and innovation of the private sector to achieve environmental goals at the lowest possible cost
- Provide opportunities for environmental and cost improvements over time
- Avoid new government or quasi-government bureaucracies
- Avoid new taxes or fees
- Apply legislation fairly at the local, national and regional level
- Provide the flexibility needed to accommodate different business models

The Issue

Due to rapidly changing technology, home and business electronics are frequently being replaced with the most cutting-edge machines, creating a growing amount of used or no longer wanted electronics globally. These electronics contain valuable materials and some materials of concern that can easily be recycled and disposed of safely. Currently, only a small percentage of electronics are recycled and public awareness of the issue is limited. However, legislation on electronics recycling is being developed and implemented rapidly in many countries around the world.

HP advocates legislation based on a shared responsibility model that emphasizes product stewardship. A product stewardship solution for the recycling of IT products will leverage the expertise and innovation of the private sector to achieve environmentally sound management of discarded IT products at the lowest possible cost, while minimizing the role and burden on government. The goals of a product stewardship approach include the following:

- Create an efficient recycling framework that involves all stakeholders;
- Leverage the expertise and innovation of the private sector to achieve environmental goals at the lowest possible cost;
- Provide opportunities for environmental and cost improvements over time;
- Avoid new government or quasi-government bureaucracies;
- Avoid new taxes or fees;
- Apply legislation fairly at the local, national and regional level;
- Provide the flexibility needed to accommodate different business models.

The development and implementation of a product stewardship solution is the shared responsibility of governments, manufacturers, retailers, consumers, recyclers and other stakeholders associated with the ownership and use of IT products.

A product stewardship solution should be inclusive and equitable, supported by regulatory mechanisms that mandate participation by all stakeholders and supported by clear enforcement initiatives and incentives that ensure compliance.

HP advocates that governments assist in educating consumers on the benefits of electronics recycling, and work with international bodies to establish appropriate standards and measures to ensure environmentally sound outcomes.

By giving product manufacturers the responsibility to manage used products, and by providing them with the flexibility to implement this responsibility, companies can achieve environmental goals in the most cost effective manner. Manufacturers could implement programs individually or in partnership with retailers, charities, the waste collection and recycling industries, local governments, or others of their choosing. This flexibility will enable private sector expertise and competition to be incorporated into the system. Many government bodies around the world have adopted variations of this approach.

This system is superior to alternative proposals based on a point-of-sale fee. Fee-based recycling programs implemented by government or quasi-government entities may, at first glance, appear attractive, but have several shortcomings:

- Lack of incentive to design more environmentally friendly products
- New taxes on customers that unnecessarily raise product prices
- Creation of new government organizations with high administrative costs
- Little or no incentives or controls for reducing costs over time
- Potential for recycling fees to be diverted for other government function.

➤ SWANA:

It is in the best interest of Federal, state, provincial and local governments, industries, environmental groups, and consumers to reduce the adverse impacts of consumer products. To achieve this result, product stewardship efforts aim to encourage manufacturers to take increasing responsibility to reduce the entire life-cycle impacts of a product and its packaging –energy and materials consumption, air and water emissions, the amount of potential pollutants in the product, worker safety, and waste disposal – in product design and in the end-of-life management of the products they produce.

A. Responsibility

The responsibility for reducing product impacts should be shared among industry (designers, manufacturers, and retailers of products or product components), government, and consumers. The greater the ability an entity or person has to minimize a product’s life-cycle impacts, the greater is its degree of responsibility, and opportunity, for addressing those impacts.

B. Internalize Costs

Under an all encompassing product stewardship approach, all product lifecycle costs – from using resources, to reducing health and environmental impacts throughout the production process, to managing products at the end of life – would be included in the total product cost. However, as stated above, SWANA’s priority is on products due to the materials they contain or other characteristics, require special collection, handling, recycling or disposal procedures, that are different from the conventional solid waste management practices carried out or arranged by local governments. For those products, the costs of product collection, reuse, recycling and disposal

should be minimized, to the greatest extent possible, for local, provincial and state governments and shifted to the manufacturers and consumers of products.

C. Incentives for More Environmentally Sound Products and Sustainable Management Practices

Policies that promote and implement product stewardship principles should create incentives for the manufacturer to design and produce products that are made using less energy, materials, and potential pollutants, and which result in less waste (through reduction, reuse, recycling, and composting) and use less energy to operate. These policies should also create incentives for the development of a sustainable and environmentally-sound system to collect, reuse, and recycle or dispose of products at the end of their lives.

D. Flexible Management Strategies

Those that are responsible for reducing the impacts of products should have flexibility in determining how to most effectively address those impacts. The performance of responsible parties shall be measured by the achievement of goal-oriented results. Voluntary stewardship programs should be encouraged and facilitated. In any case, timelines should be reasonable and achievable so that new methods for managing materials are in place before restrictions are placed on the old ones.

E. Roles and Relationships

Industry should provide leadership in realizing these principles through voluntary stewardship programs. Government should provide leadership in promoting the practices of product stewardship through procurement, technical assistance, clarification of the criteria and measurements for stewardship requirements, evaluation and recognition of voluntary programs, education, market development, agency coordination and harmonization. State, provincial and federal governments should also address regulatory barriers and, where necessary, provide regulatory incentives, disincentives or restrictions. Industry and government shall provide – and consumers should take full advantage of – information needed to make responsible purchasing, reuse, recycling, and disposal decisions.

➤ Product Stewardship Institute:

- **Responsibility**

The responsibility for reducing product impacts should be shared among industry (designers, manufacturers, and retailers of products or product components), government, and consumers. The greater the ability an entity has to minimize a product's life-cycle impacts, the greater is its degree of responsibility, and opportunity, for addressing those impacts. Manufacturers have the greatest ability, and responsibility, to reduce product impacts.

- **Internalize Costs**

All product lifecycle costs – from using resources, to reducing health and environmental impacts throughout the production process, to managing products at the end-of-life – should be included in the total product cost. The environmental costs of product manufacture, use, and disposal should be minimized, to the greatest extent possible, for local and state governments, and ultimately shifted to the manufacturers and consumers of products. Manufacturers should thus have a direct financial incentive to redesign their products to reduce these costs.

- **Incentives for Cleaner Products and Sustainable Management Practices**

Policies that promote and implement product stewardship principles should create incentives for the manufacturer to design and produce “cleaner” products – ones made using less energy, materials, and toxics, and which result in less waste (through reduction, reuse, recycling, and composting) and use less energy to operate. These policies should also create incentives for the development of a sustainable and environmentally-sound system to collect, reuse, and recycle products at the end of their lives.

- **Flexible Management Strategies**
Those that are responsible for reducing the health and environmental impacts of products should have flexibility in determining how to most effectively address those impacts. The performance of responsible parties shall be measured by the achievement of goal-oriented results.
- **Roles and Relationships**
In realizing these principles, industry will need to provide leadership. Government will also provide leadership in promoting the practices of product stewardship through procurement, technical assistance, program evaluation, education, market development, agency coordination, and by addressing regulatory barriers and, where necessary, providing regulatory incentives and disincentives. Industry and government shall provide – and consumers should take full advantage of – information needed to make responsible environmental purchasing, reuse, recycling, and disposal decisions.

Note: These principles have also been endorsed by the following organizations, some of whom may also have adopted their own principles: California Resource Recovery Association, Carolina Recycling Association, City of San Francisco, National League of Cities, North American hazardous Materials Management Association, Northeast Recycling Council, South Shore Recycling Cooperative, MA, Southern California Association of Governments, Environmental Council of States, Solid Waste Association of North America.

➤ Organization for Economic Cooperation and Development (OECD):

The "following guiding principles underlie an effective EPR program:

1. EPR policies and programs should be designed to *provide producers with incentives* to incorporate changes upstream at the design phase in order to be more environmentally sound.
2. Policies should stimulate *innovation* by focusing more on results than on the means of achieving them - thus allowing producers flexibility with regard to implementation.
3. Policies should take into consideration a *life cycle approach* so that environmental impacts are not increased or transferred somewhere else in the product chain.
4. *Responsibilities* should be well defined and not be diluted by the existence of multiple actors across in the product chain.
5. The *unique characteristics and properties* of a product, product category or waste stream should be factored into policy decisions. Given the diversity of products and their different characteristics, one type of program or measure is not applicable to all products, product categories or waste streams.
6. The *policy instrument(s)* selected should be flexible and chosen on a case-by-case basis, rather than setting one policy for all products and waste streams.
7. Extension of producer responsibilities for the product's life cycle should be done in a way to *increase communication* among the actors in the entire product chain.
8. A *communication strategy* should be devised to inform all the actors in the product chain, including consumers, about the program and to enlist their support and co-operation.
9. To enhance a program's acceptability and effectiveness, a *consultation of stakeholders* should be conducted to discuss goals, objectives, costs and benefits.
10. *Local governments* should be consulted in order to clarify their role and obtain their advice concerning the program's operation.

11. Both *voluntary and mandatory approaches* should be considered with a view on how to best meet national environmental priorities, goals and objectives.
12. A *comprehensive analysis* of the EPR program should be made (e.g. which products, product categories and waste streams are appropriate for EPR, whether historical products should be included, and the roles of the actors in the product chain).
13. EPR programs should undergo periodic *evaluations* to ensure that they are functioning appropriately and are flexible enough to respond to these evaluations.
14. Programs should be designed and implemented in a way that environmental benefits are obtained while domestic *economic dislocations* are avoided.
15. The process of developing and implementing EPR policy and programs should be based on *transparency*."

➤ Local US Stewardship Councils

(California, Texas, Vermont, New York, Washington, Oregon and British Columbia)

The following principles are intended to guide development of product stewardship policies and legislation that governs multiple products. It is primarily aimed at state legislation but is also intended as a guide for local and federal policy.

1. Producer Responsibility

- 1.1 All producers selling a covered product into the State are responsible for designing managing, and financing a stewardship program that addresses the lifecycle impacts of their products including end-of-life management.
- 1.2 Producers have flexibility to meet these responsibilities by offering their own plan or participating in a plan with others.
- 1.3 In addressing end-of-life management, all stewardship programs must finance the collection, transportation, and responsible reuse, recycling or disposition of covered products. Stewardship programs must:
 - Cover the costs of new, historic and orphan covered products.
 - Provide convenient collection for consumers throughout the State.
- 1.4 Costs for product waste management are shifted from taxpayers and ratepayers to producers and users.
- 1.5 Programs are operated by producers with minimum government involvement.

2. Shared Responsibilities

- 2.1 Retailers only sell covered products from producers who are in compliance with stewardship requirements.
- 2.2 State and local governments work with producers and retailers on educating the public about the stewardship programs.
- 2.3 Consumers are responsible for using return systems set up by producers or their agents.

3. Governance

- 3.1 Government sets goals and performance standards following consultation with stakeholders. All programs within a product category are accountable to the same goals and performance standards.
- 3.2 Government allows producers the flexibility to determine the most cost-effective means of achieving the goals and performance standards.
- 3.3 Government is responsible for ensuring a level playing field by enforcing requirements that all producers in a product category participate in a stewardship program as a condition for selling their product in the jurisdiction.
- 3.4 Product categories required to have stewardship programs are selected using the process and priorities set out in framework legislation.
- 3.5 Government is responsible for ensuring transparency and accountability of stewardship programs. Producers are accountable to both government and consumers for disclosing environmental outcomes.

4. Financing

- 4.1 Producers finance their stewardship programs as a general cost of doing business, through cost internalization or by recovering costs through arrangements with their distributors and retailers. End of life fees are not allowed.

5. Environmental Protection

- 5.1 Framework legislation should address environmental product design, including source reduction, recyclability and reducing toxicity of covered products.
- 5.2 Framework legislation requires that stewardship programs ensure that all products covered by the stewardship program are managed in an environmentally sound manner.
- 5.3 Stewardship programs must be consistent with other State sustainability legislation, including those that address greenhouse gas reduction and the waste management hierarchy.
- 5.4 Stewardship programs include reporting on the final disposition, (i.e., reuse, recycling, disposal) of products handled by the stewardship program, including any products or materials exported for processing.

Northwest Product Stewardship Council www.productstewardship.net

Adopted May 19, 2008

California Product Stewardship Council www.calpsc.org

Adopted June 4, 2008

Vermont Product Stewardship Council www.vtpsc.org

Adopted November 6, 2008

British Columbia Product Stewardship Council www.bcproductstewardship.org

Adopted Dec. 9, 2008

Texas Product Stewardship Council www.txpsc.org

Adopted January 30, 2009

NYS Assoc. for Solid Waste Management www.newyorkwaste.org

Adopted March 11, 2009

Developed with support from Product Policy Institute www.productpolicy.org

➤ Dell:

Dell's approach to IT collection and recovery seeks to combine the key principles of manufacturer responsibility, consumer convenience, accountability, transparency, education, and enforcement into a simple, effective and efficient national IT collection and recovery system.

At the end of an IT product's useful life, any consumer should be able to return that product to the manufacturer at no charge by following a process defined by the manufacturer. A return should be as convenient as the purchase of a new product. Manufacturers will have the incentive to use the most cost effective and efficient system for collecting and recycling old IT products which also will improve the products' environmental design. The manufacturer could implement its own collection and recovery program; enter into partnerships with other manufacturers, agreements with nonprofit organizations, or arrangements with third-party organizations; or adopt other innovative solutions. In addition, manufacturers should report on their progress.

The government will help educate consumers, enforce the law, and offer incentives for better design, collection and recovery. Governmental fees and separate governmental collection systems are not needed and likely would be less efficient.

Although each state might seek to address this important resource recovery issue on its own, the most efficient and effective approach is not a state-by-state effort but a national solution. Such a simple approach will promote innovation, foster partnerships, drive efficiencies, and create an effective national IT collection and recovery system.

➤ Minnesota:

Principles of product stewardship:

1. All parties who have a role in designing, producing, or selling a product or product components assume responsibility for achieving the following goals:
 - Reducing or eliminating the toxic and hazardous constituents of products and product components.
 - Reducing the toxicity and amount of waste that results from the manufacture, use and disposal of products.
 - Using materials, energy and water efficiently at every stage of a product's life cycle, including product manufacture, distribution, sale, use and recovery.

2. All purchasers and users are responsible for reducing the amount of toxicity and waste that result from their use and disposal of products, and for using products in a manner that conserves resources.
 3. The greater the ability of a party to influence the life-cycle impacts of the product, the greater the degree of responsibility the party has for addressing those impacts.
 4. Parties responsible for addressing environmental impacts of products have flexibility in determining how to best address those impacts.
 5. The costs of recovering resources and managing products at the end of life are internalized into the costs of producing and selling products, so that those costs are not paid for by government.
 6. Government provides leadership in product stewardship in all its activities, including but not limited to, promoting product stewardship in purchasing products, making capital investments in buildings and infrastructure, procuring services, and ensuring products are recycled or properly managed at the end of their useful lives.
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References

1. Oregon Dept. of Environmental Quality website. Available at:
<http://www.deq.state.or.us/lq/sw/productstewardship/index.htm>
2. Washington Ecology website. Accessed 4-14-2010. Available at:
<http://www.ecy.wa.gov/programs/swfa/swac/docs/swac2009JanProductStewardship.pdf>
3. Maine 2010 legislation, An Act to Provide Leadership Regarding the Responsible Recycling of Consumer Products, Public Law, Chapter 516 LD1631, Item 1, 124th Maine Legislature. Signed into law on March 17, 2010.
4. Minnesota Pollution Control Agency website. Accessed 4-14-2010. Available at:
<http://www.pca.state.mn.us/oea/stewardship/index.cfm>
5. Product Stewardship Institute website. Accessed 4-15-2010. Available at:
<http://www.productstewardship.us/displaycommon.cfm?an=1&subarticleenbr=14>
6. Northwest Product Stewardship Council website. Accessed 4-7-2010. Available at:
<http://www.productstewardship.net/about.html>
7. Solid Waste Association of North America website. Accessed 4-20-2010. Available at:
<http://www.isoswo.org/fileblob.asp?I=4588&table=content&ext=pdf&name=T-31ProductStewardship.pdf>
8. British Columbia, Canada Ministry of Environment website. Accessed 4-7-2010. Available at:
<http://www.env.gov.bc.ca/epd/recycling/history/index.htm>
9. Canada, Environment Canada website. Accessed 3-16-2010. Available at:
<http://www.ec.gc.ca/epr/default.asp?lang=En&n=E95D31CE-1>
10. Product Policy Institute website. Accessed 3-16-2010. Available at:
<http://www.productpolicy.org/content/about-epr>

11. Organization for Economic and Cooperative Development (OECD) website. Accessed 3-16-2010. Available at: http://www.oecd.org/document/19/0,3343,en_2649_34281_35158227_1_1_1_1,00.
12. INFORM, Inc. website. Available at: http://www.informinc.org/epr_00.php
13. US Environmental Protection Agency website. Available at: <http://www.epa.gov/epaoswer/non-hw/reduce/epr/about/index.htm>
14. Hewlett Packard website. Accessed 3-16-2010. Available at: http://www.hp.com/hpinfo/abouthp/government/ww/gib_erecycling.html
15. Dell website. Accessed 3-16-2010. Available at: http://www.de.com/content/topics/global.aspx/about_dell/values/sustainability/environment

April 21, 2010