



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# **Preliminary Cost-Benefit and Least-Burdensome Alternative Analyses**

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*Chapter 173-900 WAC*

*Electronic Products Recycling Program*

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For more information contact:

Waste 2 Resources Program

P.O. Box 47600

Olympia, WA 98504-7600

Phone: 360-407-6900

Washington State Department of Ecology – [www.ecy.wa.gov](http://www.ecy.wa.gov)

- Headquarters, Olympia 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Olympia 360-407-6300
- Central Regional Office, Union Gap 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

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# **Preliminary Cost-Benefit and Least-Burdensome Alternative Analyses**

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## **Chapter 173-900 WAC Electronic Products Recycling Program**

*by*

*Kasia Patora*

*for the*

Waste 2 Resources Program

Washington State Department of Ecology

Olympia, Washington

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# Executive Summary

This report presents the economic analyses performed by the Washington State Department of Ecology (“Ecology”) to estimate the costs and benefits of proposed amendments to the *Electronic Products Recycling Program* (chapter 173-900 WAC; “E-Cycle”; “the rule”) These analyses – the Cost-Benefit Analysis (CBA) and Least-Burdensome Alternative Analysis (LBA) – are based on the best available information at the time of publication.

The proposed rule amendments make the following discretionary changes:

- Eliminate Tier 7 manufacturer registration renewal.
- Direct Ecology to send “notices of approval” electronically, rather than by mail.
- Direct Ecology to send “notices of failure to provide service” electronically, rather than by mail.
- Require retailers to provide take-home information about the E-Cycle program to consumers making in-person purchases (not online). Expand the list of example methods retailers may use to comply with the requirement to provide customers information on where and how to recycle covered electronics, to include receipt information and stickers.

Ecology determined that, compared to the baseline discussed in Chapter 2 of this document, the proposed rule has the following costs and benefits:

## Costs

- \$0 to \$250 thousand, depending on the compliance route chosen to provide take-home recycling information. The least-cost compliance approach would use receipt information and have minimal costs as part of regular business practice.

## Benefits

- \$8 thousand per year in reduced renewal costs for Tier 7 manufacturers.
- Increased recycling of covered electronic products.
  - \$0 to \$482 thousand per year in increased payments to collectors and processors.
  - Keeping covered electronics out of landfills and illegal dump sites.
- Reduced mailing and staff time costs for Ecology and increased expediency of notices.

Ecology concludes, based on reasonable understanding of the quantified and qualitative costs and benefits likely to arise from the proposed rule, that the benefits of the proposed rule amendments are greater than the costs.

After considering alternatives to the proposed rule's contents, as well as the goals and objectives of the authorizing statute, Ecology determined that the proposed rule represents the least-burdensome alternative of possible rule contents meeting these goals and objectives. The alternative of not requiring take-home information was found to fail to meet the goals and objectives of the authorizing statutes.



# Chapter 1: Background and Introduction

## 1.1 Introduction

This report presents the economic analyses performed by the Washington State Department of Ecology (“Ecology”) to estimate the costs and benefits of proposed amendments to the *Electronic Products Recycling Program* (chapter 173-900 WAC; “E-Cycle”; “the rule”) These analyses – the Cost-Benefit Analysis (CBA) and Least-Burdensome Alternative Analysis (LBA) – are based on the best available information at the time of publication.

The Washington Administrative Procedure Act (APA; RCW 34.05.328) requires Ecology to evaluate significant legislative rules to “determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the law being implemented.” Chapters 1 through 5 of this document describe that determination.

The APA also requires Ecology to “determine, after considering alternative versions of the rule...that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives” of the governing and authorizing statutes. Chapter 6 of this document describes that determination.

### **The Electronic Products Recycling Program**

The E-Cycle program is Washington's free, convenient, and environmentally responsible electronics recycling program. It has been operational since January 1, 2009, after Ecology completed a rulemaking (chapter 173-900 WAC) implementing the Electronic Product Recycling law (chapter 70.95N RCW). Products accepted at E-Cycle Washington drop-off sites are: computers, monitors, laptops, tablet computers, televisions, portable DVD players and e-readers.

The E-Cycle program requires product manufacturers to pay for this recycling program. Through the program, registered collection sites and processors are compensated for their roles in the process of recycling the electronics made by manufacturers selling in Washington State. Registered collection sites must accept covered electronics from households at no cost. There may be a charge for at-home pick-up, curbside services, or other premium services.

For more information about producer responsibility, visit the Northwest Product Stewardship website at [www.productstewardship.net](http://www.productstewardship.net).

Since its creation, the E-Cycle program has collected over 282 million pounds of electronics for recycling. This is the amount of largely valuable and/or toxic material kept out of landfills and illegal dump sites.

## 1.1.2 Coverage

The rule covers the actions of the following types of entities that sell covered electronics or operate as part of E-Cycle, in Washington State:

- Manufacturers
- Retailers
- Collectors
- Transporters
- Processors
- Local governments

Covered electronics include:

- Televisions
- Computers
- Computer monitors
- Portable or laptop computers including "tablet computers"
- E-readers (also called e-book readers)
- Portable DVD players

## 1.2 Summary of the proposed rule amendments

The proposed rule amendments make the following discretionary changes:

- Eliminate Tier 7 manufacturer registration renewal.
- Direct Ecology to send “notices of approval” electronically, rather than by mail.
- Direct Ecology to send “notices of failure to provide service” electronically, rather than by mail.
- Require retailers to provide take-home information about the E-Cycle program to consumers making in-person purchases (not online). Expand the list of example methods retailers may use to comply with the requirement to provide customers information on where and how to recycle covered electronics, to include receipt information and stickers.

The proposed rule amendments also make the following changes, driven explicitly by the law:

- Eliminate the requirement for the authority to mail two paper copies of the annual report to Ecology (RCW 43.17.095).
- Allow local governments to submit satisfaction reports either electronically or by mail, instead of both (RCW 43.17.095).
- Allow nonprofit or charitable organizations to submit annual reports either electronically or by mail, instead of both (RCW 43.17.095).
- Allow reporting entities to submit either an electronic or paper copy, instead of both (RCW 43.17.095).
- Base manufacturer share on current market share (chapter 70.95N RCW).

## **1.3 Reasons for the proposed rule amendments**

This proposed rulemaking is required following the passage of legislation in 2013 (Chapter 305, 2013 Laws; ESB 5699). The Electronic Products Recycling Program is supported by fees paid to a stewardship organization by producers of consumer electronics subject to the rule. Most notably, the Legislature directed Ecology to implement a market-share based system to determine manufacturer responsibility from which fees will be calculated by the stewardship organization. Manufacturers' responsibility for recycling electronics will be based entirely on current sales (market share), rather than on the amount of products that were sold in the past and are just now being turned in for recycling.

This proposed rulemaking also makes changes to the requirements for the annual report filed by the authority or authorized party for the manufacturers of electronic products. This follows the passage of Chapter 292, 2013 Laws (SHB 1498) that amended chapter 70.95N RCW. In addition, other changes are needed for clarification of sufficient compliance behaviors, and clarity and editing. A legal requirement to provide an option of electronic submittal of forms also motivated elements of this rulemaking.

## **1.4 Document organization**

The remainder of this document is organized in the following chapters:

- Baseline and the proposed rule amendments (Chapter 2): Description and comparison of the baseline (what would occur in the absence of the proposed rule amendments) and the proposed changes to rule requirements.
- Likely costs of the proposed rule amendments (Chapter 3): Analysis of the types and sizes of costs we expect impacted entities to incur as a result of the proposed rule amendments.
- Likely benefits of the proposed rule amendments (Chapter 4): Analysis of the types and size of benefits we expect to result from the proposed rule amendments.
- Cost-benefit comparison and conclusions (Chapter 5): Discussion of the complete implications of the CBA, and comments on the results.
- Least-Burdensome Alternative Analysis (Chapter 6): Analysis of considered alternatives to the contents of the proposed rule amendments.

# Chapter 2: Baseline and the Proposed Rule Amendments

## 2.1 Introduction

We analyzed the impacts of the proposed rule relative to the baseline of the existing rule, within the context of all existing requirements (federal and state laws and rules). This context for comparison is called the baseline, and reflects the most likely regulatory circumstances that entities would face if the proposed rule were not adopted. It is discussed in Section 2.2, below.

## 2.2 Baseline

The baseline for our analyses generally consists of existing rules and laws, and their requirements. For economic analyses, the baseline also includes the implementation of those regulations, including any guidelines and policies that result in behavior changes and real impacts. This is what allows us to make a consistent comparison between the state of the world with or without the proposed rule amendments.

For this proposed rulemaking, the baseline includes:

- Existing requirements in chapter 173-900 WAC, Electronic Product Recycling (rule): Sets out existing requirements under the rule.
- Chapter 70.95N RCW, Electronic Product Recycling (law): Requires manufacturer shares of responsibility to be based on current market share.
- RCW 43.17.095, Option to Submit Document, Form, or Payment Electronically: Requires agencies to provide the option of electronic submittal of documents, forms, and payments.

## 2.3 Proposed rule amendments

The proposed rule amendments that differ from the baseline and are not specifically dictated elsewhere in law or rule include:

- Eliminating Tier 7 manufacturer registration renewal.
- Requiring Ecology to send “notices of approval” electronically, rather than by mail.
- Requiring Ecology to send “notices of failure to provide service” electronically, rather than by mail.
- Requiring retailers to provide take-home information on the E-Cycle program. Expanding the list of example methods retailers may use to comply with the requirement to provide customers information on where and how to recycle covered electronics, to include receipt information and stickers.

### **2.3.1 Eliminating Tier 7 manufacturer registration renewal**

Manufacturer administrative fees are determined by fee tiers, including Tier 7, which cover manufacturers who previously manufactured, but whose covered electronics are not directly sold into Washington State. Under the proposed rule, manufacturers in Tier 7 would no longer need to renew registration, unless their covered electronics begin to be sold in Washington State again. This is likely to create a benefit of saved renewal costs.

### **2.3.2 Requiring Ecology to send electronic notices of approval**

Under the baseline, Ecology is required to send notice of approval of annual reports via certified mail. The proposed rule alters this requirement, replacing certified mail with electronic notice. This is likely to create a benefit of saved postage and staff time, and increased expediency of notices of approval.

### **2.3.3 Requiring Ecology to send electronic notices of failure**

Under the baseline, Ecology is required to send notice of failure to a recycling plan that is deemed to be failing to provide service in a community, by certified mail. The proposed rule alters this requirement, replacing certified mail with electronic notice. This is likely to create a benefit of saved postage and increased expediency of notices of approval.

### **2.3.4 Requiring retailers to provide take-home information**

Under the baseline, retailers are required to provide information on the E-Cycle program to buyers of covered electronics, if those electronics are purchased at a physical location (as opposed to online). For example, providing Ecology's toll-free telephone number and web-site is explicitly listed as a way to fulfil this requirement. The existing rule lists a number of ways that retailers may provide this information, and may include:

- Use of Ecology's artwork in advertisements such as flyers, shelf-tags, stickers, or brochures for the E-Cycle program.
- Providing information about how to recycle covered electronics in Washington State either in, on, or with the packaging.

The proposed rule adds the requirement that the information given at the point of sale must be take-home, and adds examples of providing information in a way that can be taken home:

- Stickers
- On sales receipts

This is likely to create:

- Costs for retailers, for providing take-home information on the E-Cycle program.
- Benefits of additional covered electronics being recycled instead of going to landfills and being left at illegal dump sites.

# Chapter 3: Likely Costs of the Proposed Rule Amendments

## 3.1 Introduction

We estimated the likely costs associated with the proposed rule amendments, as compared to the baseline. Amendments and the baseline are discussed in detail in Chapter 2 of this document. Likely costs of the proposed rule arise from:

- Take-home information at the point of sale: Costs for retailers, for providing take-home information on the E-Cycle program.

## 3.2 Take-home information at the point of sale

The proposed rule adds the requirement that the information retailers provide to customers at the point of sale of covered electronics be take-home information. It also provides additional examples of compliance with this requirement, such as stickers or information on sales receipts. We estimated a range of costs for this proposed amendment, allowing for both receipts and stickers.<sup>1</sup>

It is important to note that a large number of retailers have already been in compliance with the proposed rule through their compliance with the existing rule. Many retailers already provide information on receipts, as this is a very low-cost means of providing this information, in the same way many retailers provide other business information, promotions, and surveys. Many other retailers provide a sticker on the packaging for take-home electronics. Other retailers, however, provide on-site information, or fail to provide compliant information at all.

To provide a highly conservative overestimate of costs, we made our cost estimate based on the assumption that no retailers currently provide take-home information, or on-site information. This means actual costs of the proposed rule are undoubtedly smaller than the range estimated in this analysis.

### 3.2.1 Receipts as take-home information

The incremental cost of adding or changing information provided on receipts is likely to be minimal, as part of regular business practices. Retailers regularly provide other information on

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<sup>1</sup> Ecology analyses typically take into account 20-year present values. 20-year present values are a way to translate costs and benefits that occur at different points in time, such as the cost of reducing the release of toxins, resulting in benefits of reduced cancers and other health impacts in human and animal populations far into the future. In the case of the proposed rule, both costs and benefits can be represented in annual terms, because costs and benefits are not likely to occur over significantly different time frames. Specifically, take-home information provided now may not even be the reason a person recycles the purchased electronic product at the end of its life, but rather may be the reason a person recycles the product being replaced, such as an old monitor or laptop.

their receipts, and inclusion of the required E-Cycle information as part of this process is not likely to incur greater than minimal costs. If retailers decide to comply with the proposed rule using receipt information for sales of covered electronics at physical locations (take-home information is not required for online sales), the likely cost is near zero. This estimate is the bottom end of our estimated cost range.

### **3.2.2 Stickers as take-home information**

We estimated the annual cost of using stickers as take-home information based on:

- Retail costs of large-volume custom sticker purchases, for a 2-inch round sticker, printed with website and phone number information designed and provided by Ecology on its website. The average per-unit retail price was approximately 6 cents.<sup>2</sup>
- Average units sold per year from the 2011 – 2013 timeframe, of approximately 4 million units. This includes online sales.<sup>3</sup>
- Between 37 percent and 99 percent of units being sold at physical locations (not online), based respectively on:
  - The 63 percent of sales online in 2013 (most recent available) at electronic shopping and mail order houses. (Assumes the majority of retail sales are not in-person.)<sup>4</sup>
  - The 1 percent of sales online in 2013 (most recent available) at electronics and appliance stores. (Assumes the majority of retail sales are in-person, in-store pickup, or through physical stores' websites.)<sup>5</sup>

Using the above inputs, we estimated a range of costs for the proposed rule between \$93 thousand and \$250 thousand per year.

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<sup>2</sup> Ecology review of large-volume sales offers of 2-inch round stickers with two colors, including: Office Max, Office Depot, Sticker Giant, Sticker Mule. As of September 2015.

<sup>3</sup> Ecology records of retailer sales under the 2011, 2012, and 2013 E-Cycle program.

<sup>4</sup> US Census Bureau (2015). U.S. Retail Trade Sales – Total and E-commerce: 2013 – 1998. Based on data from the Annual Retail Trade Survey.

<sup>5</sup> Ibid.



### 3.3 Summary of the likely costs of the proposed rule amendments

We estimated the costs of the rule relative to the baseline (both discussed in depth in Chapter 2 of this document). Likely costs included:

- Minimal costs of giving customers take-home information on the E-Cycle program using receipts. **OR**
- \$93 thousand – \$250 thousand per year costs of giving consumers take-home information on the E-Cycle program using stickers.

These are two possible ways retailers might comply with the take-home information requirement. They have been added to the list of example means of compliance explicitly stated in the proposed rule.

The estimated cost of using stickers is overestimated, because it assumes no retailers currently provide take-home information of any sort (though many do), and the upper end of the range assumes that 99 percent of purchases are made in person, although this number is based on electronics and appliance stores as a group (per available survey data), and various appliances may be purchased in-person more frequently than covered electronics.

The overall range of likely costs is between minimal and \$250 thousand, depending on the compliance route chosen to provide take-home recycling information.

# Chapter 4: Likely Benefits of the Proposed Rule Amendments

## 4.1 Introduction

We estimated the likely benefits associated with the proposed rule amendments, as compared to the baseline (both described in Chapter 2 of this document). Likely benefits include:

- Reduced renewal costs for Tier 7 manufacturers.
- Increased recycling of covered electronic products.
- Reduced mailing costs and increased expediency of notices.

We estimated these costs on an annual basis.<sup>6</sup>

## 4.2 Reduced renewal costs for Tier 7 manufacturers

The proposed rule eliminates the requirement for Tier 7 manufacturers to renew their registrations. Tier 7 manufacturers are those that used to manufacture, but whose products are no longer sold in Washington State. We estimated annual cost savings based on:

- Assumed one hour of time saved renewing registration.
- Average managerial hourly wage of approximately \$56.<sup>7</sup>
- 137 existing Tier 7 entities.<sup>8</sup>

We estimated an annual cost savings (benefit) of approximately \$8 thousand per year for avoided yearly renewal costs.

## 4.3 Increased recycling of covered electronic products

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<sup>6</sup> Ecology analyses typically take into account 20-year present values. 20-year present values are a way to translate costs and benefits that occur at different points in time, such as the cost of reducing the release of toxins, resulting in benefits of reduced cancers and other health impacts in human and animal populations far into the future. In the case of the proposed rule, both costs and benefits can be represented in annual terms, because costs and benefits are not likely to occur over significantly different time frames. Specifically, take-home information provided now may not even be the reason a person recycles the purchased electronic product at the end of its life, but rather may be the reason a person recycles the product being replaced, such as an old monitor or laptop.

<sup>7</sup> US Bureau of Labor Statistics (2014). May 2014 State Occupational Employment and Wage Estimates: Washington. [http://www.bls.gov/oes/current/oes\\_wa.htm](http://www.bls.gov/oes/current/oes_wa.htm).

<sup>8</sup> Ecology records for 2015 Tier establishment calculations.

The proposed rule requires retailers to provide take-home recycling information to customers purchasing covered electronics in-person. It explicitly adds two methods of compliance to the list of examples in the rule language: information on receipts or stickers. Take-home information is likely to increase the proportion of covered electronics that are recycled, instead of going to landfills and being left in illegal dump sites. It would also improve collection and processing volumes for participants in the E-Cycle program.

We estimated the lattermost of these benefits assuming:

- 18 percent of electronics being thrown away each year.<sup>9</sup>
- Average annual sales of approximately 4 million units of covered electronic product.<sup>10</sup>
- An approximately 15-lb weight of the average product.<sup>11</sup>
- Most recent collection weight of covered electronic products of 44 million lbs. (2014)<sup>12</sup>
- Assumed 5-year average product life before replacement.

Using the above assumptions, we estimated that with increased information provided in a form consumers can take home and access when getting rid of covered electronics they are replacing, the proposed rule could increase collections by over 11 million lbs., a 25 percent increase in electronic product mass going to collectors and processors in the program.

This would increase annual payments from the program to collectors by up to approximately \$218 thousand per year, and to processors by approximately up to \$264 thousand each year.

### **4.3.1 Comparable estimates**

To cross-check these estimates, we compared them to the E-Cycle program's surplus funds (reserves) from 2014.<sup>13</sup> Program funds taken in are based on what is manufactured, and then sold in-state, so theoretically, if all eligible products are recycled in-state, total program outlays (costs and payments) should equal to the funds taken in.

The estimated total of approximately \$482 thousand is comparable to the \$410 thousand in funds collected by the program for products being sold in Washington State, but not paid out for products collected in the state. The discrepancy between the numbers arises from different years of data as inputs, the methodology used to determine manufacturer payments based on available unit or weight sales information, assumed average weight rounding, assumed product

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<sup>9</sup> Consumer Electronics Association (2014). Importance of Recycling: CEA Study Says More People are Recycling Electronics. Arlington, VA – 11/20/2014. Sources their Recycling and Reuse Study, 2014 Edition.

<sup>10</sup> Ecology records of retail unit sales 2011-2013.

<sup>11</sup> E-Cycle Washington (2015). E-Cycle Washington Standard Plan 2014 Annual Report.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

replacement time, and the external survey estimate of the percentage of electronics thrown away each year.

It is important to note that these estimates are high-end estimates that assume full success in recycling of covered electronic products.

The overall full range of this benefit is \$0 to \$482 thousand, and this scaling also affects qualitative benefits including:

- Keeping covered electronics out of landfills and illegal dump sites.

## **4.4 Reduced mailing and personnel costs, and increased expediency of notices**

The proposed rule replaces requirements for certified mailing of notices of approval and notices of failure to provide service, with requirements for electronic notice. These amendments are likely to reduce mailing and staff time costs for preparing certified mail at Ecology, as well as increase expediency of notices reaching the E-Cycle program participants or the program authority. We could not confidently estimate these benefits quantitatively, and so include them qualitatively in this analysis.

## **4.5 Summary of the likely benefits of the proposed rule amendments**

The proposed rule provides the following likely benefits, as compared to the baseline (both discussed in depth in Chapter 2 of this document). Likely annual benefits include:

- \$8 thousand per year in reduced renewal costs for Tier 7 manufacturers.
- \$24 per year in reduced mailing costs of the authority sending two paper copies of the annual report to Ecology.
- Increased recycling of covered electronic products.
  - \$0 to \$482 thousand per year in increased payments to collectors and processors.
  - Keeping covered electronics out of landfills and illegal dump sites.
- Reduced mailing and staff time costs for Ecology, and increased expediency of notices.

# Chapter 5: Cost-Benefit Comparison and Conclusions

## 5.1 Summary of the costs and benefits of the proposed rule amendments

Ecology determined that, compared to the baseline discussed in Chapter 2 of this document, the proposed rule has the following costs and benefits:

### Costs

- \$0 to \$250 thousand, depending on the compliance route chosen to provide take-home recycling information. The least-cost compliance approach would use receipt information and have minimal costs as part of regular business practice.

### Benefits

- \$8 thousand per year in reduced renewal costs for Tier 7 manufacturers.
- Increased recycling of covered electronic products.
  - \$0 to \$482 thousand per year in increased payments to collectors and processors.
  - Keeping covered electronics out of landfills and illegal dump sites.
- Reduced mailing and staff time costs for Ecology and increased expediency of notices.

## 5.2 Conclusion

Ecology concludes, based on reasonable understanding of the quantified and qualitative costs and benefits likely to arise from the proposed rule, that the benefits of the proposed rule amendments are greater than the costs.

# Chapter 6: Least-Burdensome Alternative Analysis

## 6.1 Introduction

RCW 34.05.328(1)(e) requires Ecology to “[d]etermine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection.” The referenced subsections are:

- (a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements;
- (b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule;
- (c) Provide notification in the notice of proposed rule making under RCW 34.05.320 that a preliminary cost-benefit analysis is available. The preliminary cost-benefit analysis must fulfill the requirements of the cost-benefit analysis under (d) of this subsection. If the agency files a supplemental notice under RCW 34.05.340, the supplemental notice must include notification that a revised preliminary cost-benefit analysis is available. A final cost-benefit analysis must be available when the rule is adopted under RCW 34.05.360;
- (d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented;

In other words, to be able to propose and adopt the rule, Ecology is required to determine that the contents of the rule are the least burdensome set of requirements that still achieve the goals and objectives of the authorizing statute(s).

Ecology assessed alternatives to elements of the proposed rule, and determined whether they met the goals and objectives of the authorizing statutes. Of those that would meet these goals and objectives, Ecology determined whether those chosen for the proposed rule were the least burdensome.

## **6.2 Goals and objectives of the authorizing statute: Chapter 70.95N RCW**

Chapter 70.95N RCW, Electronic Product Recycling, states:

The legislature finds that a convenient, safe, and environmentally sound system for the collection, transportation, and recycling of covered electronic products must be established. The legislature further finds that the system must encourage the design of electronic products that are less toxic and more recyclable. The legislature further finds that the responsibility for this system must be shared among all stakeholders, with manufacturers financing the collection, transportation, and recycling system.

It also states that:

A retailer who sells new covered electronic products shall provide information to consumers describing where and how to recycle covered electronic products and opportunities and locations for the convenient collection or return of the products. This requirement can be fulfilled by providing the department's toll-free telephone number and web site. Remote sellers may include the information in a visible location on their web site as fulfillment of this requirement.

It concludes by stating, “This act must be liberally construed to carry out its purposes and objectives.”

The law as a whole expects that:

- The system must be convenient, safe, and environmentally sound.
- Manufacturers finance the program.
- Retailers must provide information about where and how to recycle covered products.
- The program must include collection, transportation, and recycling.



## **6.3 Alternatives considered and why they were not included**

As part of this rulemaking, Ecology considered alternatives to the rule content being proposed. These include:

- Not requiring take-home information.
  - This alternative would have retained the existing requirement to provide information during retail sales of covered products. Ecology does not feel this was achieving the goal of an environmentally sound program, since many consumers did not have immediate, straightforward access to information on where and how to recycle their covered electronics at the time that it was most likely to be useful – when a new product was brought home to replace it.

## **6.4 Conclusion**

After considering alternatives to the proposed rule's contents, as well as the goals and objectives of the authorizing statute, Ecology determined that the proposed rule represents the least-burdensome alternative of possible rule contents meeting these goals and objectives.

## Sources

Consumer Electronics Association (2014). Importance of Recycling: CEA Study Says More People are Recycling Electronics. Arlington, VA – 11/20/2014. Sources their Recycling and Reuse Study, 2014 Edition.

Ecology records for 2015 Tier establishment calculations.

Ecology records of retailer sales under the 2011, 2012, and 2013 E-Cycle program.

Ecology review of large-volume sales offers of 2-inch round stickers with two colors, including: Office Max, Office Depot, Sticker Giant, Sticker Mule. As of September 2015.

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