



**Small Business Economic Impact Statement
For
WAC 173-900
Electronic Product Recycling**

Prepared by:
Washington State Department of Ecology
July 2006

06-07-021

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Ecology welcomes comments on this SBEIS

Executive Summary

The Department of Ecology (Ecology) is proposing adoption of a new rule implementing RCW 173-900. The proposed rule provides establishment requirements for a convenient, safe and environmentally sound system for collection, transportation and recycling of electronic products in Washington State. As required under RCW 19.85.030, Ecology is developing and issuing this Small Business Economic Impact Statement (SBEIS) as part of the rule adoption process. Ecology will use the information developed in the SBEIS as required by law to ensure that the proposed rules are consistent with legislative policy.

The costs to businesses that will be considered in this analysis are the administrative fee, the time requirements for the registration form and tier re-assignment considerations.

The administrative fee disproportionately impacts small businesses analyzed on a per employee basis determined quantitatively. The time and contract costs may vary widely and are not quantified. However, it has been demonstrated that the registration form requirements and tier re-assignment aspects are deemed to disproportionately impact large businesses.



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Description And Purpose Of The SBEIS

This SBEIS evaluates the costs that the proposed rule might impose on businesses. In particular, Ecology finds that the costs to businesses of the proposed rule create a disproportionate impact on the State's small businesses.¹

This SBEIS evaluates the proposed rule which was developed under ESSB 6428. ESSB 6428 was passed during the 2006 Washington State legislative session and became effective July 1, 2006. Due to the timeline, Ecology divided the rule-making process into two phases. The SBEIS evaluates phase one of the rule making and will focus on the following topics:

- **Manufacturer registration process**
All manufacturers who plan to have their covered electronic products sold in or into Washington after January 1, 2007 must be registered with the Department of Ecology. Ecology must have rules in place in sufficient time to notify manufacturers of the requirements.
- **Manufacturer fee structure and payment schedule**
Manufacturers must pay their fees by January 1, 2007.
- **Mandatory Brand labeling**
Manufactures must brand label covered electronic products by January 1, 2007.
- **Collector and Transporter registration:**
In order to provide adequate notice to collectors, transporters, the registration form has been developed for phase 1.

Phase 2 rule making will focus on developing rules to implement the remaining portions of SB 6428. This will include: recycling plan submittal, review and content; program implementation; return share and equivalent share calculations; processor registration; standards for collectors; transporters and processors; and additional topics identified during the public involvement process. This SBEIS will be modified for the adoption of Phase two.

Discussion Of Compliance Costs For Businesses

Introduction

Chapter 173-900 will establish a state-wide electronic product recycling program in Washington that holds manufacturers responsible for the final disposal costs of the covered electronic products they sell. Under phase 1 of this rule, manufacturers, collectors and transporters will be required to register and manufacturers will pay annual fees. Manufacturers must register in order to be allowed to sell product directly or through retailers in Washington.

¹ The specific purpose and required contents of the SBEIS is contained in RCW 19.85.040

Manufacturer Registration

Manufacturers are required to fill out the registration form which includes listing name and contact information, billing information and whether the manufacturer expects to participate in a standard or independent plan. Then the manufacturer must identify all the brands which the company owns. For each brand, a graphic and word description of brand labels used must be submitted to Ecology. Manufacturers must also list brand names that are no longer offered for sale but which the company still owns. Additionally, they must list the brands that the company manufactures, but does not own. Manufacturers must pay their administrative fee when they submit their registration form. The fee will be based on the tier they are assigned to according to the following Table IIa.

Table IIa

Tiers	Manufacturer's percentage of total unit market share
Tier 1	1% or greater
Tier 2	.1% to <1%
Tier 3	.03% to <.1%
Tier 4	.01% to <.03%
Tier 5	Below .01%

Fees will be distributed to each tier in order to spread costs based on the unit sales, given the number of manufacturers and the amount of revenue that needs to be generated to cover Ecology's administrative costs (See table IIIb). Manufacturers may request to be re-assigned to a different tier if they believe they have been incorrectly assigned. The re-assignment process is different for manufacturers assigned to Tier 1 and 2 than the process for manufacturers assigned to Tier 3 and 4. The details and impacts of the registration form, administrative fee and tier re-assignment requirements are discussed in Section 3: Costs.

Collector, Transporter Registration

The collector and transporter registration is combined onto the same form. The form does not request any information beyond what the statute requires. The form requires the company Unified Business Identifier (UBI), Tax Identification Number (TIN) and contact information for all registrants. The transporter information required includes standard requests such as several general yes or no transporter questions, operating status of the business, service area, licensing information and commodities transported. The Collector information requested includes several general yes or no collector questions, facility location questions, status of business, commodities collected, service area and Washington State business license number.

Costs

Distribution Of Compliance Costs

Small businesses are defined for the purpose of the SBEIS to have less than 50 employees. A requirement of the SBEIS is that it must compare the costs of compliance for small businesses with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules. This impact statement will focus on the cost per employee, while examining national as well as state-wide trends.

Fees:

Table IIIa displays figures for computer manufacturing and audio and video equipment manufacturing for Washington State, at a National level and averages combining the figures.

Table IIIa

Washington Small Business/Large Business Ratio Computer and Television Manufacturers		
	Small Businesses (less than 50 employees)	Large Businesses (greater than 50 employees)
Total	269	9
Percentage	96.7%	3.3%
Average Employee per establishment	34.5	249.5
National Small Business/Large Business Ratio Computer and Television Manufacturers		
	Small Businesses (less than 50 employees)	Large Businesses (greater than 50 employees)
Total	485	571
Percentage	81.5%	18.5%
Average Employee per establishment	9.65	318.35
Washington and National Average		
	Small Businesses (less than 50 employees)	Large Businesses (greater than 50 employees)
Percentage	89.1%	10.9%
Average Employee per establishment	22.1	283.9

Averaging both state-wide and national estimates, Ecology found that approximately 90% of computer and television manufacturing establishments are small businesses. There is an estimated average of 22 employees per small business establishment. It is expected that small businesses will be assigned to tiers 2 through 5 on the fee schedule. The fees in the tier schedule are set up to be flexible to vary depending on how many manufacturers are in a given category each year and the amount of unit market share each tier encompasses. Given that there is no set fee associated with each tier, Ecology will use the best information available to estimate how small businesses will be impacted by this fee schedule. Table IIIb is an example

of how the fee structure may be interpreted for the initial and second year of the program. It should be noted the initial year fees represent significantly higher initial year costs due to start-up expenses Ecology will incur. As companies move into and out of fee tiers by declaring the number of units they have sold into Washington, the individual fees will change. Two Scenarios are displayed in Table IIIb.

Table IIIb: Example of how fee structure may be interpreted for 1st and 2nd year of program with a range of units from 1.1 million to 2.2 million.²

Scenario 1: 1.1 million units in Washington									
First Year									
Tier	# Companies	% of Costs	# Units	Fee per unit	Minimum Fee per Unit	Maximum Fee per Unit	Total Collection	Individual fee	Rounded
1	25	67.5%	742,500	\$0.42	\$0.07	\$1.14	\$311,850	\$12,474	\$12,500
2	25	20.0%	220,000	\$0.42	\$0.34	\$3.36	\$92,400	\$3,696	\$3,700
3	25	10.0%	110,000	\$0.42	\$1.68	\$5.61	\$46,200	\$1,848	\$1,850
4	50	5.0%	55,000	\$0.42	\$1.44	\$4.32	\$23,100	\$462	\$475
5	50	0.5%	5,500	\$0.42	\$0.41	\$45.00	\$2,310	\$46	\$45
Total			1,100,000				\$475,860		
Second year									
Tier	# Companies	% of Costs	# Units	Fee per unit	Minimum Fee per Unit	Maximum Fee per Unit	Total Collection	Individual fee	Rounded
1	25	67.5%	742,500	\$0.20	\$0.03	\$0.55	\$148,500	\$5,940	\$6,000
2	25	20.0%	220,000	\$0.20	\$0.16	\$1.64	\$44,000	\$1,760	\$1,800
3	25	10.0%	110,000	\$0.20	\$0.82	\$2.73	\$22,000	\$880	\$900
4	50	5.0%	55,000	\$0.20	\$0.67	\$2.00	\$11,000	\$220	\$220
5	50	0.5%	5,500	\$0.20	\$0.20	\$22.00	\$1,100	\$22	\$22
Total	175		1,100,000				\$226,600		
Source: Jay Shepard, Dept. of Ecology									
Scenario 2: 2.2 million units in Washington									
Initial year									
Tier	# Companies	% of Costs	# Units	Fee per unit	Minimum Fee per Unit	Maximum Fee per Unit	Total Collection	Individual fee	Rounded
1	18	67.5%	1,415,600	\$0.21	\$0.09	\$0.75	\$297,276	\$16,515	\$16,500
2	25	20.0%	440,000	\$0.21	\$0.17	\$1.68	\$92,400	\$3,696	\$3,700
3	32	10.0%	289,400	\$0.21	\$0.86	\$2.88	\$60,774	\$1,899	\$1,900
4	50	5.0%	110,000	\$0.21	\$0.68	\$2.05	\$23,100	\$462	\$450
5	50	0.5%	11,000	\$0.21	\$0.20	\$45.00	\$2,310	\$46	\$45
Total	175		2,200,000				\$475,860		
Second year									
Tier	# Companies	% of Costs	# Units	Fee per unit	Minimum Fee per Unit	Maximum Fee per Unit	Total Collection	Individual fee	Rounded
1	18	67.5%	1,415,600	\$0.10	\$0.02	\$0.36	\$141,560	\$7,864	\$7,900
2	25	20.0%	440,000	\$0.10	\$0.08	\$0.82	\$44,000	\$1,760	\$1,800
3	32	10.0%	289,400	\$0.10	\$0.41	\$1.36	\$28,940	\$904	\$900
4	50	5.0%	110,000	\$0.10	\$0.68	\$2.05	\$11,000	\$220	\$450
5	50	0.5%	11,000	\$0.10	\$0.20	\$45.00	\$1,100	\$22	\$45
Total	175		2,200,000				\$226,600		
Source: Jay Shepard, Dept. of Ecology									

Note: This assumes the inclusion of units from Major Retailers that own brand names.

² The 1.1 million units estimate comes from data for CEA member companies and the 2.2 million estimate is generated based on data from the Cascadia study.

This tier structure is based on a conservative estimate that 175 manufacturers will register with Ecology. It is anticipated that 25 manufacturers will be assigned to the Tier 1 category thus representing the top ten percent of manufacturers. It is assumed the remaining Tiers 2-4 will be assigned to small businesses.

Table IIIc shows the cost per employee for small and large businesses. The cost per employee is 12% higher for small than for large businesses. This table uses scenario 1 in Table IIIb.

Table IIIc: Fees and cost per employee

Cost per employee	Large Business	Small Business
Average # employees	284	22
Total fee collected Tier 1	\$311,850	
Total fee collected Tier 2-5		\$164,010
# Establishments	25	150
# employees	7100	3300
Cost per employee	\$43.92	\$49.70

Additional manufacturer's costs include registration time and requests for tier reassignment. It is anticipated that registration time and tier reassignment burdens will fall more heavily on larger businesses.

Manufacturer registration application:

- Large businesses will experience greater costs due to independent plans. The registration form requests manufacturers to decide whether they will be participating in the standard plan or an independent plan. Under the law, an independent plan must hold 5% or more of the return share. Manufacturers can do this either alone or combined with other manufacturers and it is anticipated that most small businesses will opt to participate in the standard plan and that the very large businesses will experience costs as they analyze the benefits and costs of creating their own independent plan. Forming an independent plan is a complex process as they require collection points in every county and community with a population greater than 10,000, among other qualifications. It is expected that large businesses will spend significantly more time and effort on this decision.
- The registration form also requires manufacturers to list all brand names that their company manufactures, brands that are no longer offered for sale for which the company has legal ownership and brands that the company manufactures but does not have legal ownership for. For each brand, the registering company must identify the year the brand was first sold in Washington State and provide a picture and description of the brand logo. Most small businesses will have fewer brands than they manufacturer and thus will not have to spend as much time identifying brands, years sold in Washington and company log pictures and descriptions to submit to Ecology. Large businesses will experience greater costs due to the complexity of brand names over time.

Tier Reassignment:

After Ecology assigns a manufacturer to a tier, they have the option to request reassignment. If assigned to Tier 1 or 2, the manufacturer must provide statistically valid data of the

manufacturer's share of covered electronic products sold in or into Washington that is validated by a Certified Public Accountant (CPA). The demonstration must include new data that improves the information Ecology used to determine market share distribution for all manufactures. Most businesses assigned to Tier 1 or 2 are expected to be large. For any small business that happened to be assigned to Tier 2, the costs would be disproportionately larger than they are for the large companies. A company is unlikely to request reassignment if the savings is less than the cost of doing so. At this time Ecology expects a maximum savings of \$1,850 in the first year. If any company having 50 or fewer employees were to expend this much to show that it should be moved into Tier 3, then the minimum cost per employee would be \$37. If an average large company expended this much then the cost per employee would be \$7.

If a manufacture assigned to Tier 3 or 4 requests to be re-assigned, the manufacturer must submit documentation to Ecology demonstrating how many units of covered electronic products the manufacture sold in or into Washington State during the previous calendar year. It is assumed that most small businesses will be subject to this reassignment criterion. No certified public accountant is required.

The requirements for tier re-assignment are much more stringent for large manufacturers than small manufacturers. In addition, the change in the fee as a company moves from one tier to the next places a cap on the likely expenditures. Thus, the requirement will generally not be disproportionate for most smaller companies but may be disproportionate for a few. There is a small probability of lost sales. Ecology expects that manufacturers will register rather than foregoing sales because the cost per unit is generally small by comparison to the price (\$5.61 is the estimated maximum). However, at the very low end of the manufacturing spectrum, in theory, a company that manufactured less than 4 computers will experience higher per unit costs and may opt out. Ecology does not believe that there are any TV or Monitor manufactures that create units in this range. A computer manufacturer in this range is also highly unlikely and would be likely to incorporate a reused part. Thus the scenario is unlikely.

Collector and Transporter Registration:

The Collector and Transporter registration form requires basic information that should be readily available for the businesses to provide. Filling out this form is expected to cause only minor costs. Minor costs are exempt from analysis.

Secondary Impacts

It is probable that some or all of the increased costs associated with the proposed rule revisions will be passed on to consumers in the form of higher electronic product costs. Given that the fee was computed by Ecology assuming \$0.42 average per unit charge the initial year and a \$0.20 average per unit charge in the subsequent year, it is not expected that prices will be impacted beyond those values. Table IIIId shows the percentage of increases in prices given that average prices of the electronic products associated with this rule. The maximum fee impact was calculated using the initial year value which will be the highest fees charged due to first year start-up costs.

Table IIIId

	Personal Computers (Includes notebooks, desktops including monitor)	Televisions
Average price 2005	\$820.00	\$670.00
Fee impact	\$0.42	\$0.42
Percentage fee impact	0.05%	0.06%

Conclusion

Businesses engaged in the manufacturing of electronic products will incur increased costs as a result of the rule implementation. These costs will vary depending upon the amount of manufacturers that are identified to register for this program, the unit market share that manufacturers possesses, the time it takes to gather information for the registration form and the resources required for tier reassignment requests. Ecology has analyzed the effects of this rule and finds that the impacts on sales should be minimal but that the rule may likely have quantifiable disproportionate impacts to small businesses and qualitative disproportionate impacts to large businesses.

Business Involvement And Industry

Actions Taken To Reduce The Impact On Small Business

The rule is likely to have disproportionate impacts on smaller firms. Ecology must therefore reduce the impact to small businesses if it is legal and feasible to do so.

- (a) Reducing, modifying, or eliminating substantive regulatory requirements;
Ecology must base the fee on sales. It is not legal to eliminate reduce or modify this component.
- (b) Simplifying, reducing, or eliminating record keeping and reporting requirements;
- The forms for the application process have been simplified. The forms minimize the requirements of duplicate information.
 - The companies only have to submit additional information if they are requesting placement in a different Tier.
 - The tier re-assignment process for most small manufacturers is much less stringent than for large businesses. Manufacturers who request to be reassigned from Tier 3 or 4 do not have to provide statistically valid market share data validated by a certified public accountant.
 - Ecology has attempted to minimize time and expense for all businesses by striving to allow manufacturers, collectors and transporters to register via the internet and e-mail.
- (c) Reducing the frequency of inspections;
There are no inspections associated with the fee.

- (d) Delaying compliance timetables;
This would not help the companies. They need to be listed as manufacturers in order to market their product.
- (e) Reducing or modifying fine schedules for noncompliance;
Fine schedules are in the RCW. No modification is possible.
- (f) Any other mitigation techniques.
The tiered fee structure that allows companies that manufacture fewer units to contribute less for the administrative costs of this rule.

List Of Industries Required To Comply

The most likely industries to which phase 1 of this rule will apply will be those involved in the manufacturing of covered electronic products. Other firms that participate in the form of collectors, transporters and processors will be sending us information but will be more heavily affected in phase two of this rule making. Table 4.1 contains a list of industries required to comply with the rule. The North American Industry Classification System (NAICS) is the industry classification system used by the statistical agencies of the United States.

Table 4.1. Industries Likely to be Required to Comply with the Rule

NAICS Code	Description
334111	Computer Manufacturing
334310	Audio and Video Equipment Manufacturing
562111	Recyclable material collection services Recyclable material hauling, local

How Was Small Business Involved In The Development Of This Rule?

In 2004, ESHB 2488 directed Ecology, in consultation with the Solid Waste Advisory Committee created under RCW 70.95.040, to conduct, research and develop recommendations for the implementation and financing of an electronic product collection, recycling, and reuse program. During that time, Ecology and the Solid Waste Advisory Committee consulted with stakeholders. These stakeholders included small and large business among the representatives of covered electronic product manufacturers, covered electronic product retailers, waste haulers, electronics recyclers, charities. Other stakeholders included cities, counties, environmental organizations, public interest organizations, and other interested parties that have a role or interest in the collection, reuse, and recycling of covered electronic products.

As a result, ESSB 6428 was passed during the 2006 Washington State legislative session to become effective July 1, 2006. Since the passage of the law, Ecology has encouraged the participation of all entities in considering the impacts and outcomes of the proposed rules throughout the rule-making process. Small businesses were represented on the advisory panel that helped to develop this rule. This public process was open to both small and large

businesses. Small businesses presented information to the committee. Further input will be encouraged during the public comment period for the proposed rule.

Ecology requests comments on this SBEIS and any new information that may be of value in decision making.

Appendix A: References

1. *CEA Study Finds Most Unwanted Electronics Go To Secondary Users*, December 2005, <http://www.findarticles.com/p/articles/mi_m0KWH/is_12_43/ai_n15978785/print> (June 2006), Recycling Today.
2. *E-Waste Recycling Fees: Will They Cover Costs Over Time? An assessment of the Fees Needed to Sustain Recycling of Covered Electronic Products under ESHB 2488 Draft Report*, September 2005, Cascadia Consulting Group.
3. U.S. Census Bureau, NAICS Directory, 2002, www.census.gov (July 2006).
4. *Workforce Explorer Washington*, < <http://www.workforceexplorer.com> > (July 2006) Washington State Employment Security.

Appendix B: 2002 U.S. Census Data

Computer Manufacturing NAICS code 334111				Audio and Video Equipment Manufacturing NAICS code 334310			
Small Business				Small business			
# Employees	Average	Establishments	Employees	# Employees	Average	Establishments	Employees
1 to 4	2.5	207	517.5	1 to 4	2.5	249	622.5
5 to 9	7	72	504	5 to 9	7	70	490
10 to 19	14.5	58	841	10 to 19	14.5	87	1261.5
20 to 49	34.5	51	1759.5	20 to 49	34.5	68	2346
Total		388	3,622	Total		474	4720
Average employees per SB establishment:	9.3			Average employees per SB establishment:	10.0		
Large Business				Large Business			
# Employees	Average	Establishments	Employees	# Employees	Average	Establishments	Employees
50 to 99	74.5	42	3129	50 to 99	74.5	39	2905.5
100 to 249	174.5	20	3490	100 to 249	174.5	38	6631
250 to 499	374.5	16	5992	250 to 499	374.5	9	3370.5
500 to 999	749.5	10	7495	500 to 999	749.5	10	7495
1000 to 2499	1749.5	4	6998	1000 to 2499	1749.5	1	1749.5
2500 or more	2500	5	12500	2500 or more	2500	-	-
Total		97	39,604	Total		97	22151.5
Average employees per LB establishment:	408.3			Average employees per LB establishment:	228.4		
Calculations				Calculations			
% SB employees	% LB employees	% SB establishments	% LB establishments	% SB employees	% LB employees	% SB establishments	% LB establishments
8.4%	91.6%	80.0%	20.0%	17.6%	82.4%	83.0%	17.0%