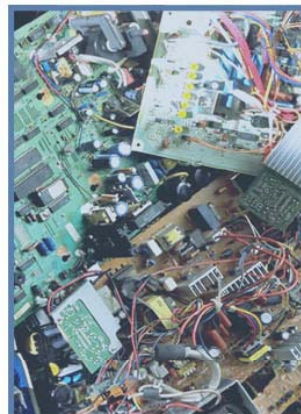


April 2006



EXECUTIVE SUMMARY CONCEPTUAL BUSINESS PLAN

*For an Electronic Product Stewardship
Third-Party Organization (TPO)*

Developed as a project of the Northwest Product Stewardship Council
and led by a Steering Committee of Electronics Manufacturers





Project Steering Committee Members (January, 2006)

David Thompson (Panasonic)	Tim Mann (IBM)
Frank Marella (Sharp)	Ed Nevins (JVC)
Butch Teglas, Ric Erdheim (Philips)	Mike Moss (Samsung)
Doug Smith (Sony)	Shelby Houston (Epson)

Project Support Team Members (January, 2006)

David Nightingale (PM/Washington DOE)	Lisa Sepanski (King County)
Tamie Kellogg (facilitator)	Norm England (RBRC)
Jan Whitworth (Oregon DEQ)	Saskia Mooney (RBRC)
R. V. "Buddy" Graham (Polymer Alliance Zone)	Scott Klag (Metro Regional Government, Oregon)
David Weinberg (RBRC)	Sego Jackson (Snohomish County)
Garth Hickle (Minnesota)	Signe Gilson (City of Seattle)
Jeff Hunt (U.S. EPA Region X)	Steven Johnson (Garvey, Schubert, Barer)
Jason Linnell (NCER)	Vicky Salazar (U.S. EPA)
Walter Alcorn (Alcorn Consulting/NCER)	Wayne Rifer (Rifer Environmental)
	Jay Shepard (Washington DOE)

EXECUTIVE SUMMARY

This Third Party Organization (TPO) Business Plan outlines an organizational structure and a mechanism for delivering waste management services for waste electronic products (e-waste) in the states of Oregon and Washington. Project participants hope that these findings could apply in other multi-state situations as well.

To illustrate how a TPO could provide practical value on a business and policy basis, a Steering Committee of electronics manufacturers developed this Conceptual Business Plan based on a set of key assumptions about TPO responsibilities and the broader, legislated electronics recycling system. This Plan was produced as part of the larger Pacific Northwest TPO Project, which explored issues and concerns expressed by Steering Committee members and other stakeholders about TPO concepts and implementation impacts. Certain characteristics of this Business Plan, such as the scope of products covered and the utilization of the local infrastructure, are outlined for modeling purposes but will ultimately be decided by state legislatures. The assumption that legislation is necessary to implement this Business Plan was confirmed by the legal research conducted during the Project. Model legislation was not prepared as part of this Phase One effort.

The guiding principle of this study is that an Electronic Product Stewardship TPO would be an industry-led, not-for-profit corporation dedicated to effectively delivering a system for recycling discarded electronics. The TPO would work within the framework of state legislation and, intending to serve multiple states, it would facilitate convenient, cost-effective and environmentally-sound collection and recycling of specified electronic products. The TPO would also provide a valuable flow of information between participants in the electronics chain of commerce— consumers, retailers, manufacturers, material suppliers, recyclers and government— regarding information on product characteristics and quantities, design ideas, incentives, and the management of electronic products at end-of-life.

Major Business Plan Assumptions

- The TPO engages electronics manufacturers and retailers to help achieve state program objectives by managing and paying for the delivery of collection, transport and processing services.
- The Business Plan assumes the TPO has access to a source of funding provided via an Advance Recycling Fee that is established by legislation and that is adequate to cover the services for which the TPO is responsible.
- The Business Plan assumes, for the states of Oregon and Washington, that 100 percent of eligible sales are captured into the program and that those funds finance the collection, transport and processing of all returned, covered electronic products. These collection and recycling services would be provided without additional charge and be convenient to consumers and other users of covered electronic products.
 - Note that this approach differs from alternative approaches that would have more than one entity each covering only a portion of the returned products with a

portion of the available funding. These alternative approaches are explored in the Business Plan and in Appendix C to illustrate the impact of less-than-100 percent approaches upon the economic viability of the system. These documents demonstrate that other approaches could inhibit economies of scale and that competing plans, in some cases, may duplicate services and increase administrative costs.

- The product scope assumed in this Business Plan covers desktop and laptop computers, and display devices including monitors and flat panels and televisions.

Major Business Plan Findings

- While there are several legal issues that could limit the function of a regional TPO, any new recycling system will require legislative authorization at the state and/or federal level. Thus, legal restrictions on TPO establishment, operation and financing are limited to a relatively narrow set of constitutional issues discussed in Appendix D (Legal Analyses).
- For the first four years of TPO operations, total costs of the TPO and recycling system covering Oregon and Washington are projected at approximately \$29 million. Following system ramp-up during the first 3 years, total system costs projected for year 4 are as follows:

Total Year 4 Costs (in thousands of U.S. dollars)					
Recycling	Shipping	Collection Payments	TPO Labor	Other Costs	Total Year 4 Need
\$5,400	\$680	\$3,400	\$520	\$1,500	\$11,140

- A base level of service that is “free and convenient” is managed by a regional TPO and could be implemented by charging a fee of fewer than six dollars per new unit sold. Households and small businesses would have free access to convenient drop-off locations, and larger commercial users could utilize TPO-contracted recycling services at no additional cost. The Steering Committee selected financing of these services via an Advance Recycling Fee (ARF) model.

TPO System Costs per New Unit Sold in Washington and Oregon (estimates, rounded to nearest dollar)	
TV unit >19"	\$6
TV unit <19"	\$3
Desktop PC unit	\$2
CRT/large LCD monitor	\$4
LCD monitor unit <22"	\$2
Laptop unit	\$1

- Implementation of this Business Plan would begin upon enactment of electronics recycling legislation generally consistent with this Business Plan in one or more states.

The schedule in Section 6 details the timeline for system startup, including assumptions about E-Waste Commission startup (e.g., creation in the second or third month) and the TPO (e.g., formation of TPO Board of Directors in Month 3). Initial TPO start-up costs are approximately \$250,000 prior to finalization of a Cooperative Agreement between the TPO and E-Waste Commission in Month 9, and an additional \$1.25 million for Months 9-15 prior to the collection of fee proceeds.

Estimated TPO Start-up Costs		
Prior to Finalization of Cooperative Agreement (Month 9)	Prior to Initiation of Fee Collection (Month 14)	TOTAL TPO STARTUP COSTS
\$250,000	\$1,250,000	\$1,500,000

- Projected collection volumes from household and residential sources over the four-year planning period were estimated as follows:


Projected Collections from Households/Small Businesses – lbs./capita/year			
Year 1	Year 2	Year 3	Year 4
1.35	1.76	2.3	2.6

Major Business Plan Recommendations

- **A hybrid recycling system model** offers the best guarantee of meeting individual state policy directions while achieving the economies of scale that are critical to making the program cost-effective. For each implementing state, the hybrid utilizes two organizations – one that is unique to each state to collect the government-mandated fees and to provide program oversight, and a second that is a private TPO operating on a multi-state basis to manage the collection/recycling system.

1) A state-specific “E-Waste Commission” will collect and disburse funds and provide oversight to assure that state policy directions established by legislation or regulation are achieved. This “Commission” could be a new agency, an assignment to an existing agency, or another legal arrangement deemed appropriate by the state legislature.

The legal analysis in Appendix D (Johnson memo) refers to such an organization as a “special purpose state agency” and states: “The Oregon and Washington legislatures have created or authorized the creation of numerous special purpose state and local commissions, boards, authorities and districts to achieve particular governmental objectives.” (p.2)



2) A privately-managed, multi-state TPO to contract for and manage recycling services. The TPO would engage the leadership of electronics manufacturers and other key stakeholders that provide valuable experience and perspective.

The TPO could be designed and created by a group of private individuals or an existing entity—referred to as the “Founders” in the Business Plan. It could be established as an independent entity or within another pre-existing organization, and would likely be a not-for-profit organization.

In this hybrid system, the State Commission would likely establish an agreement or contract with the multi-state TPO, thus providing the TPO access to the funds, under defined conditions, in order to manage recycling services. This agreement would assure that individual policy directives of the state are implemented, but it must provide a level of consistency between states in order for the TPO operation to be viable. Funding authority and oversight thus would reside closely within each state, while management of recycling services benefits from regional economies of scale.

The authors of this Business Plan wish to thank the Washington Department of Ecology, U.S. EPA Region X and other members of the Project Support Team who assisted in this exploration of a multi-state electronics recycling system.