

**Recycling System Subgroup  
Conference Call Meeting 7 Summary  
January 3, 2002  
1:30 – 2:45 PM**

**Members in Attendance**

Kent Dunn, EZConserve	Oso, Free Geek
Chipper Hervieux, WA DOE	Scott O'Connell, Intel
Lisa Sepanski, King County, WA	Betty Patton, Environmental Practices (WEPSI staff)
Heather Bowman, EIA	

**Summary of previous meetings** The summary of the subgroup's work to date was sent out via email the day before the meeting. This file includes a beginning exploration of our future pursuits.

**Future meetings and schedule** The next conference call meeting for the subgroup will be Thursday, January 24<sup>th</sup> at 1:30. Our meetings will be held every 3 weeks. We also will meet in person at the next multi-stakeholder meeting in Seattle on February 6<sup>th</sup>.

**Meeting summary** This subgroup has the responsibility of creating an action plan for product stewardship's role in reuse and recycling. This meeting was designed to be a brainstorming session that allowed us to create our ideal solutions to CRT recycling in the Pacific Northwest and to begin to solve the software installation and licensing problems on second hand equipment. The following record of this meeting reflects the myriad of ideas presented by the members. There is an attempt to group the ideas by topic. They are not listed in order of importance. They were not discussed thoroughly to come to consensus on any of these topics. This is a list of opinions.

**CRT Recycling**

An ideal program for full reuse and recycling of materials would be a complete take back program involving all manufacturers. They would receive, repair, dismantle, reuse, and recycle their own equipment, resulting in an information feedback loop that directly affected design and manufacturing techniques.

A take back program such as this should not be discussed because it is not doable within the industry.

Based on multiple requests from the public, local governments are trying to explore television recycling. Is it feasible? Local governments would like to work with the private sector to provide the public with disposal options.

Retailers of televisions offer to take back the old television when they deliver the new one. Therefore, the collection infrastructure exists. This collection method offers quantity at a single site. Now we need to offer retailers some recycling of these materials instead of landfilling.

Industry is beginning to explore the reduction of numbers of plastic resins.

Most plastic scrap from this material stream is commingled, resulting in low grade products that require additives. Buyers for plastics pursue a single resin for their needs.

We can design a program that allows for local disassembly so that the plastics and metals can be recycled locally. Only the glass will be shipped where markets are available.

There are still a lot of questions about what happens to the product after it arrives at a foreign destination.

Asia pays for escrap. It cannot be burned as fuel for the prices they are paying for it.

Washington DOE has adopted a requirement for their staff to know more about their end markets when items are sent for recycling.

There are 4 glass manufacturers in the PNW.

Even with the e-scrap waste ban in China, there seems to be no shortage of importers willing to bring in the material. It is manifested as electronic waste.

Without a viable overseas market, our recycling programs are dead in the water.

There is considerable disassembly and assembly of monitors in the Maquiladoras in Mexico. They receive parts for assembly.

Knowing more about where the glass is being used will help us funnel it back there.

Most CRTs are manufactured in Asia – Japan, China, Korea.

SVTC is surveying foreign markets via a mail questionnaire, not personal visits.

We should fund an auditor to travel to both foreign and domestic sites to report material handling techniques.

Our goal should be to work with CRT manufacturers to return clean material to them for recycling.

## **Software Licensing and Installation**

### *Software*

Microsoft is abandoning the support of Windows 95 in the near future. This is software that will fit and run smoothly on many of the older donated systems. Windows 95 users will have difficulty surfing the net. New Windows operating systems such as XP require very young hardware.

Open source software is modern software. It is realistic to use it on Pentiums as old as 1994.

### *Education*

We need front end education. How do you offer it and make money?

Education is needed at every step of the way.

Currently, recycling the hardware is the only income source for education centers.

Get school districts involved.

Education centers could team up with thrift stores who receive donated machines. For example, Goodwill Industries' mission is to educate.

Goodwill Industries in Washington accepts hardware, but offers no education or training.

Our action plan should include expanding Free Geek.

Get educators teamed up with those who know Linux. There are many within the schools' staff. Involve them in the hardware, network and software needs of the school.

Individuals within Portland Public Schools are beginning to implement Linux based networks and utilize equipment that is available. Free Geek is working with PPS and the PTA to get into schools and involve the parents.

We must include an education component in public schools in our action plan. This increases the lifespan of hardware.

People that have developed hardware and software knowledge like to share that information.

A Geek Exchange Program involves people that know and want to share with those that need to know.

*Ideas from Free Geek that can be applied at a larger scale*

Non-profits like Free Geek are the gatekeepers at the dumpster. They extract value and add value to hardware otherwise destined to the landfill.

Free Geek is running a computer manufacturing center. They receive parts of all types and train their volunteers to create a usable system from these diverse pieces.

Free Geek has a set of minimum knowledge requirements for their volunteers. Any potential volunteer not meeting those requirements can be brought up to that level via a class on site.

Oso of Free Geek in Portland taps into all of his volunteers' expertise. This non-profit now has someone that repairs and resells VCR's and someone that repairs laser printers.

### **Homework assignments**

Betty and any others in the subgroup will continue to share ideas that can expand or narrow our focus for our end product. Betty will begin to create the structure for our SWOT analysis.

Oso is in touch with Lou Brown, a senior administrator of PPS. He will talk with him about current Linux installations and opportunities for expansion.

Lisa Sepanski and Chipper Hervieux will provide us with the Washington State Department of Ecology Interim Policy for Conditional Exclusion of Electronic Wastes. A draft version was released on January 2.