



**Fluorescent Lighting Product Stewardship
National Dialogue Meeting #2
Meeting Summary
Seattle, WA
July 15-16, 2008**

ATTENDEES

The meeting was attended by 37 participants, with another 27 participants using a conference call dial-in number over the course of the two-day meeting. The final participant list is on the PSI website at <http://www.productstewardship.us/FluorescentLightMeetingSeattleWA>.

MEETING MATERIALS

This meeting summary, the final agenda, PowerPoint presentations, and handouts are posted at <http://www.productstewardship.us/FluorescentLightMeetingSeattleWA>. PowerPoint presentations should be consulted for presentation details when reviewing this meeting summary.

WELCOME AND INTRODUCTIONS

Scott Cassel (PSI) opened the meeting by welcoming the group and thanking U.S. EPA Region 10 for hosting the meeting. Funding for the meeting was provided by the Washington Department of Ecology, and sponsorships for meals and refreshments provided by King County Hazardous Waste, Wal-Mart, and the National Electrical Manufacturers' Association (NEMA).

Richard Albright, Director of the Office of Air, Waste, and Toxics at U.S. EPA Region 10, welcomed the group and indicated his appreciation for the participants' efforts to address the benefits and concerns associated with fluorescent lighting. He referenced the work of the Northwest Product Stewardship Council and described the growing interest in product stewardship initiatives demonstrated by retailers in Washington. Albright also described the strong partnership that the Region 10 office has with the Washington Department of Ecology.

Darin Rice, Program Manager at the Hazardous Waste and Toxics Reduction Program at the Washington Department of Ecology (Ecology), welcomed the group and explained that fluorescent lamps and other mercury-containing products are a top priority for the department.

OVERVIEW OF PSI DIALOGUE PROCESS, GOALS, AND MEETING OBJECTIVES

Scott Cassel (PSI) presented general information about PSI, but focused mainly on the proposed issue statement and goals in the *Fluorescent Lighting Product Stewardship Action Plan*. He also outlined the anticipated "road map" of four national dialogue meetings. Scott presented a definition of "consensus" and spoke about the importance of each stakeholder's good faith

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participation. Participation in the national dialogue does not preclude working on legislative initiatives.

The first meeting, held in Salt Lake City on April 23-24, 2008 with funding from U.S. EPA Region 8, resulted in the creation of three workgroups which have furthered the discussions on Infrastructure (for “small” consumer recycling), Bans and Enforcement, and Financing.

Workgroup update: Infrastructure (for residential and small commercial sectors)

The Infrastructure workgroup focused on the following four priorities:

- 1) Breakage related to the collection and recycling of lamps from the consumer and small commercial sectors. The workgroup will provide input to an upcoming breakage study being conducted by U.S. EPA (Office of Water, Office of Toxics, Office of Solid Waste, Region 1, and Region 5).

Linda Barr (U.S. EPA) updated the group on the study, which is evaluating the potential health effects of mercury release from lamp breakage. The EPA will study multiple health metrics to address exposure in residential settings. Scientific peer review and a general review are planned. The focus of the study will be on clean-up procedures, including what type of container to use for broken lamps and the handling of contaminated carpet, upholstered furniture, and other materials. Currently, the study process is challenged by inadequate funding to address the multiple and diverse interests in the issue. U.S. EPA will develop the study design over the next few months.

- 2) Survey retailers collecting lamps to learn how they are overcoming challenges. The workgroup developed a list of the “Top 10” challenges to retail collection of fluorescent lamps. PSI will interview retailers who *are* collecting lamps to determine how they are overcoming these challenges.
- 3) Consideration of Paint Infrastructure Study. The group requested to learn more about the extensive infrastructure study conducted for the PSI national paint initiative, which was later presented by Dave Nightingale (WA Department of Ecology) at this meeting.
- 4) Additional collection and recycling programs underway. Becky Jayne (IL EPA) collected information on additional recycling programs not included in the PSI Action Plan. These focused on primarily short-term, utility-funded programs.

Workgroup update: Bans and Enforcement

The goal of the Bans and Enforcement workgroup is to increase the number of jurisdictions with disposal bans and to better enforce existing bans.

Workgroup update: Financing

The Financing workgroup identified several existing financing models as priorities for the dialogue group to explore. Overviews of these were presented and discussed at this meeting.

STATE AND LOCAL UPDATES

John Welch, Dane County Public Works (WI)

Since 2004, Dane County has enacted a disposal ban that requires retailers selling fluorescent lamps or mercury thermostats to collect and recycle these items, although data collection has been challenging since there is no mandatory reporting requirement. However, the data that have been collected indicate that the number of lamps collected has increased each year. Currently, about half of the 100 stores selling CFLs in the County collect lamps for recycling, including large and small retailers. Focus On Energy, an energy efficiency program administrator, provides CFL collection boxes to retailers. A County task force is currently revising the education campaign to improve communications among retailers and customers.

André Algazi, CA Department of Toxic Substances Control

The CA Lighting Efficiency and Toxics Reduction Act (Assembly Bill 1109), which was signed in 2007, includes the following provisions:

- 1) The California Energy Commission must adopt energy efficiency standards for general purpose lighting;
- 2) Lighting is subject to the European Commission's Reduction of Hazardous Substances (RoHS) Directive, including any updates;
- 3) A Task Force will provide recommendations to the Legislature in September 2008 on the following:
 - a. The most convenient and cost efficient systems for consumers to recycle general purpose lighting;
 - b. Education and outreach; and
 - c. Labeling and designations on packaging.

The Task Force has met five times, and subgroups have convened between meetings. The Department has drafted a report of consensus items for review by Task Force members and others prior to submittal to the Legislature. The recommendations to the Legislature will likely result in legislation in the 2009 season to take effect in 2010.

Lisa Conley, MA State Legislature, Committee on the Environment, Natural Resources, and Agriculture

Lisa described the Massachusetts Mercury Management Act of 2006, which requires that information on proper recycling locations must appear on mercury-containing product packages. Manufacturers must implement an education plan, and the following goals must be reached: 30% collection by the end of 2008, 40% collection by the end of 2009, 50% by 2010, and 70% thereafter. Manufacturers collectively must pay \$1 million per year, divided based on market share, if these targets are not achieved. Manufacturers must monitor their own performance, although they currently do not have access to recycling data. The recycling infrastructure is excellent for the commercial sector, but limited for the small commercial/residential sector.

OVERCOMING OBSTACLES TO RETAIL COLLECTION

Sierra Fletcher (PSI) presented an overview of the issue. The dialogue group has identified retailers as the "backbone" for collecting lamps from residential, and possibly commercial, consumers. Currently, retail collection opportunities vary in their logistics, geographic coverage, and products collected (many are CFLs only). PSI will implement a survey with the Infrastructure Workgroup to understand how retailers that are collecting lamps (e.g., Ikea, Ace, True Value, Home Depot, etc.) have overcome challenges related to space, employee training, cost, safety/breakage, inappropriate products being dropped off, and liability.

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Take it Back Network, Lauren Cole (King County, WA)

The Take it Back Network (TIBN), which operates in several counties in Washington, started with a pilot project in 2005 with the goal of shifting collection and recycling from the public to the private sector. There are now 23 retailers collecting CFLs and linear fluorescent lamps from consumers and small businesses. Retailers may charge an end-of-life fee (currently ranging from \$0.50 to \$1.25 per lamp) to pay for recycling. The TIBN provides members (including hardware stores, lighting stores, and IKEA) with technical support, including advice on recycling and storage options. More linear tubes than CFLs have been collected thus far. As an initial step, HHW sites accepted lamps collected from retailers. However, it is not considered commensurate with the goals of the program, since the lamps would end up back as the responsibility of local government.

McLendon's Hardware, Benjamin Wood, (consultant) This local chain collects a variety of products at stores in several counties as part of the TIBN. They would like manufacturers to develop lamp packaging that can be reused for recycling, but this is difficult because today's CFLs are much smaller than those of ten years ago. The stores use small, plastic bins for CFLs and round, paper barrels for linear tubes (almost all of which are 8-ft.). The store has not found breakage to be a problem.

AB1109 Discussions on Retail Collection, André Algazi (CA DTSC)

Retailers are willing to be part of a state-wide lamp collection infrastructure as long as it is voluntary. Many Task Force members believe that retail collection is cost-effective and convenient. Currently, retailers in San Luis Obispo County are required to collect lamps for recycling if they sell them, though the state would like to avoid a county-by-county approach. In some locations, retail collection is targeted only for residential consumers. However, other retailers collect from small businesses/organizations that are also their customers and have only a few lamps to recycle at a time. In King County, the TIBN is used successfully by small businesses and residences (Lauren Cole, King County). Very small businesses might be best served by box/mail-in programs (Paul Abernathy, ALMR).

PAINT INFRASTRUCTURE STUDY

Paint Infrastructure Study, Dave Nightingale (WA Department of Ecology)

Dave described the study conducted for the Paint Product Stewardship Initiative, a PSI-facilitated project, which outlined infrastructure options for managing leftover paint from households. The Infrastructure Workgroup had indicated an interest in learning more about this study to determine whether a similar study is needed for fluorescent lamps (considering the residential and small consumer sectors only). A consultant completed the 1.5 year study at a cost of \$156,000 (plus in-kind staff time). The study assessed the existing infrastructure, its performance, effectiveness, and cost, and identified infrastructure gaps. The program found that permanent collection sites are generally more cost effective than collection events. Dave showed how to calculate the optimal number of collection sites, and emphasized the need to set measurable goals that increase over time. The value of the returned paint (that is manufactured into recycled paint for sale) can offset the cost of collecting leftover paint. Since an estimated 10% of the product sold is available for collection, the assumption is that fewer collection locations would be required than there are sales locations. Dialogue meeting participants found great value in Dave's presentation, but concluded that such a study is not needed for fluorescent lamps at this time.

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FINANCING PRESENTATIONS

The Financing Workgroup identified the following financing models as being of interest and expressed a need to learn more about these models.

Waste Electrical and Electronic Equipment (WEEE) Directive (Europe), Christoph von Rautenfeld (OSRAM)

Christoph worked on the WEEE for OSRAM for four years. Since July 2007, he has been responsible for WEEE/EPR-type activities for OSRAM globally. Lamps are different from other products included in the WEEE because of their fragility, applicable hazardous waste regulations, low weight/high volume (over 700 million lamps put on EU market per year) and a lack of material value after recycling. The manufacturers' goal is to create eco-efficient solutions, integrate the interests of all stakeholders in a collective infrastructure that is sustainable, ensure a level playing field for all market participants, guarantee the confidentiality of market data, and inform all stakeholders equally. Companies have the option of meeting the legal requirements of the law individually or by joining the Collection and Recycling Support Organization (CRSO), a non-profit outsourcing organization that customizes logistics for different countries and outsources transportation and recycling to third parties. Twenty-seven lamp collection schemes have been created across the EU, and these competing schemes vary in terms of effectiveness and cost. The WEEE Directive includes a visible fee that is scheduled to sunset after six years of program implementation, although OSRAM believes this should be extended. There is no indication that this fee has impacted consumer demand for CFLs.

Maine Energy Efficiency Funded Program, Richard Bacon (Efficiency Maine)

There are 300 stores that collect CFLs through a program financed by Efficiency Maine via utility rates. When a collection bucket is filled, it is sent to a recycler. Currently, buckets with only 35 to 45 CFLs are being returned because older CFLs tend to be larger, so costs are \$1 per lamp. As program efficiency increases and the size of CFLs decreases, costs are expected to decrease to \$0.60 to \$0.70 per lamp. However, funding continues to be an issue. Maine is considering implementing a ratepayer fee of \$0.15 per kWh to pay for the continued collection of lamps. Maine sells 600,000 to 800,000 bulbs annually, so the number recycled is expected to continue to rise.

Minnesota Utility Funded Collections, John Gilkeson (MN Pollution Control Agency)

Minnesota has had a lamp disposal ban since 1993. Legislation also requires utilities with over 200,000 retail customers to promote the use and safe management of fluorescent lamps, including the creation of recycling opportunities for small business and household customers. Utilities are allowed to contract with local government to collect the lamps. Programs must be convenient and collect the "... maximum number of spent lamps... that is reasonably feasible." Costs can be recovered through "conservation cost recovery charges" on utility customers. Xcel Energy, Great River Energy, and other private utilities, municipal utilities, and cooperatives have set up collection programs serving an estimated 50% of the state's 5 million people.

California's AB 1109 Proposals on Financing, André Algazi (California DTSC)

The AB1109 Task Force has discussed potential financing options for the residential sector, ranging from full manufacturer responsibility for all costs to options that included contributions from utilities and retailers. Although there is no consensus yet on how programs should be

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financed, there is general agreement that utilities and manufacturers should contribute funds, with in-kind contributions from retailers serving as collection sites. PG&E indicated a short-term willingness to pay for CFL recycling if it can access public goods funds to cover recycling costs. Explicit authority would have to be created through new statutory language for government oversight of this program.

Option “M” from AB1109, Mark Kohorst (NEMA) and Paul Abernathy, ALMR

Mark highlighted NEMA’s efforts to promote lamp recycling and suggested that each stakeholder had different strengths that it used to develop NEMA’s Option M proposal within California’s AB1109 process. Option M suggests that manufacturers establish and manage a third party organization (with multi-stakeholder involvement) with utilities paying for recycling costs. Manufacturers would fund administration and outreach.

British Columbia Producer-financed System, Jennifer Wilson (British Columbia Ministry of the Environment)

In 2004, the British Columbia Ministry of Environment established a results-based recycling regulation focused on environmental outcomes rather than operations, providing a level playing field for all producers and allowing flexibility and innovation in the process. Industry has flexibility in their approach as long as goals are met, and they are required to cover the costs of collection and management. Industry programs must be approved, and annual reports on operations and financing must be filed. The Ministry will add two new products to the Recycling Regulation every three years to reduce greenhouse gas emissions and protect the environment. In April 2008, mercury-containing lamps and thermostats were added, with industry expected to launch a program by early 2010.

Rechargeable Battery Recycling Corporation Producer-financed System, Sean Burchill (RBRC)

RBRC is a nonprofit, public service organization established by battery manufacturers to manage the recycling of used rechargeable batteries. Beginning in the U.S. in 1996 and in Canada in 1997, RBRC has since collected over 42 million pounds of used rechargeable batteries. Manufacturers of rechargeable batteries and products that use them fund the RBRC, and in turn are permitted to use the RBRC Battery Recycling Seal on their products. These licensees pay fees based on the number of units sold. RBRC pays for the collection and recycling of the batteries. RBRC does not know the recycling rate for rechargeable batteries.

Washington Electronics Producer-financed System, Jay Shepard (Washington Department of Ecology)

The Washington Electronics Law passed in 2006, mandating a producer responsibility, cost internalization recycling program for electronics to be implemented in January 2009. Washington Department of Ecology collects an annual fee from manufacturers for administrative and enforcement costs, which is based on current market sales. Fifty percent of the costs in 2009 will be based on the company’s share of returns, and another 50 percent will be based on sales, though the ratio will convert over time. The Materials Management Financing Authority (MMFA) then uses the funds to administer the program and set up collection, transport, and processing systems in the State of Washington. Participation in the MMFA is optional; manufacturers can opt to create their own plan if they represent (alone or in conjunction with others) at least 5% of the products being collected.

The regulations also set minimum standards for recycling (related to the handling of toxic materials), though the MMFA has chosen to exceed these standards by complying instead with a higher level, voluntary standard.

Pros and Cons of Financing Models

Following the series of presentations described above, participants created lists of the pros and cons of four general financing models as shown here.

PROS and CONS of Generic Financing Options for Small Commercial & Consumer Sectors	
Utilities pay all or most of the costs	
Pros <ul style="list-style-type: none"> Existing financing mechanism (in some states) Cost effective energy savings No effect on product price Simple Broad-based (spread across all ratepayers) Efficient education/outreach Tied to energy efficiency lighting – ties promoter to EOL management 	Cons <ul style="list-style-type: none"> Disproportionate to benefit Most programs are for CFLs only Is this best use of utility/ratepayer money? (Considering climate change-related priorities) Increases electricity cost to consumers HW management is not utility business – no financial benefit for manufacturers/retailers Funding not guaranteed (likely only short-term) Added fee (“tax”) for states without mechanism Inconsistencies nationally Many regulatory statutes change to break through limitations May dilute EPR model/benefits No direct relation to manufacture/design Regressive on low-income and unfair for those not using the product Chain of commerce relationship not established Best role: education
Extended Producer Responsibility (EPR – cost internalization by manufacturers)	
Pros <ul style="list-style-type: none"> Best deal for consumer Design incentive Company with benefit/profit has financial incentive Least impact on increasing cost of CFLs Incentive to lower recycling cost/efficient Competitive – cost optimization (business decision) No retail administration Spreads cost across lighting Greater <u>flexibility</u> to manufacturers on price Incorporate end-of-life costs equally with other costs – easier for differential (theoretical) 	Cons <ul style="list-style-type: none"> No evidence of EPR benefits for design Some costs for some companies can’t be passed on Any increase in cost will decrease purchase of CFLs Higher cost to consumer Can’t spread costs among product lines Recyclers see lower profit margins <ul style="list-style-type: none"> Market disruption
Eco-Fee (visible fee paid at retail that consumer sees)	
Pros <ul style="list-style-type: none"> Educates consumer Economically viable – manufacturers assured costs are passed on Lower cost – no retail markup Revenue generator Manufacturer responsibility 	Cons <ul style="list-style-type: none"> Perceived as gouging consumers/tax and as removal of manufacturer responsibility (imposed by government) → confusion of multiple fees Increase product price of energy-efficient products Retail opposition Little incentive to cost optimization (?) → European example of lower cost Tendency to reduced flexibility on legislated fee Concern with legislative fee managed by individual Fees sunset – need renewal
Retailer Cost Internalization (retailer pays all costs for collection and recycling of lamps in their stores)	
Pros <ul style="list-style-type: none"> Closer to actual cost for collection/recycling Retailers have influence Could be competitive advantage for some retailers Reverse distribution advantage (<u>all systems</u>) Opportunity to jump start programs 	Cons <ul style="list-style-type: none"> Can be stopped any time Most focus on CFLs only Not level playing field for all retailers Distinction to maximize collection Retailers are not ones influencing decision-making Increase in price Retailer opposition to legislation No producer role in system Would not cover <u>all</u> collection points Difficult to enforce

Discussion

The group decided that, since a financing system is effectively in place for the large commercial sector, any financing system to be developed would include only the residential and small commercial sectors. As these sectors have not yet been defined, there is a question as to whether schools would be included (in Wisconsin, small local governments and schools were allowed to use the state-negotiated contract rate for recycling). Suellen Mele (WCRC) will provide a draft definition for the sectors based on the Electronics Law.

One participant suggested that a fee could be paid on incandescent lamps to pay for the recycling of fluorescent lamps. This could be an interim measure that could transition to full EPR. (Sego Jackson, Snohomish County)

BANS AND ENFORCEMENT

The Bans and Enforcement Workgroup presented information related to state and local bans on the disposal of fluorescent lamps. The full dialogue group was supportive of enforcing existing bans and passing bans in additional states. The group was fully supportive of disposal bans for the large commercial sector, but wanted certain conditions to be met before bans were enacted for the small commercial and consumer sectors.

Reasons to promote disposal bans for the small commercial and consumer sectors

Disposal bans for this sector would serve a critical educational role and allow agencies and others to tell people *not* to put lamps in the trash, rather than just suggesting it. Mercury release from garbage cans in the home is a key part of the issue, not just keeping lamps out of landfills/incinerators. (Sego Jackson, Snohomish County)

In the northeast states, disposal bans have motivated the development of product collection infrastructure. (Terri Goldberg, NEWMOA) Bans also generate recycling business, and motivate recyclers to invest in infrastructure. (Craig Lorch, EcoLights)

Providing a clear message and options to alleviate environmental impacts of lamp disposal is important, since government and other groups have promoted the use of fluorescent lamps for their climate change benefits. (Promotion must continue as well, until a viable, preferable alternative is available.)

Concerns about disposal bans for the small commercial and consumer sectors

Bans add to public concerns about mercury and may deter people from using the product. (Ric Erdheim, Philips) NEC would not support a disposal ban without more details on the infrastructure and the demonstrated capacity to collect all the lamps in the state. More information would also be needed on enforcement mechanisms, fines, etc. (Carrie Dolwick, Northwest Energy Coalition)

Recycling infrastructure is a necessary pre-requisite to a ban. With no value in the collected materials, there is no economic motivator to create the infrastructure necessary. (Mark Kohorst, NEMA)

Options for disposal bans

A comprehensive disposal ban should be implemented with a phased approach such that it applies first to the large commercial sector, for which the recycling infrastructure already exists, and then later to the small commercial and consumer sectors, once widespread recycling opportunities and education are in place. (Rob Rieck, WA Ecology)

Caveats for a disposal ban applicable to the small commercial and consumers sectors:

- Promote ban in context of sale of new lamps
- Adequate recycling and widespread education must be in place
- Sustainable financing must be available for collection and recycling

Enhancing enforcement of large commercial sector bans (or existing recycling requirements)

Compliance education must precede enforcement action. (Rob Rieck, WA Ecology)

Enforcement actions are more effective if publicized. (Paul Abernathy, ALMR; Craig Lorch, EcoLights) Enforcement is challenged by lack of funding in Iowa. Any legislation would need to have funding for enforcement included. (Theresa Stiner, IA DNR) Many large lamp consumers are not priorities for RCRA inspectors because they are not the largest generators of hazardous wastes overall. (Allison Watanabe, U.S. EPA)

PERFORMANCE METRICS

Performance metrics can be used to measure various components of the functioning of a program, including collection rates, convenience, and education/outreach efforts. Goals could be set by a stewardship/third party organization, statute/regulations, or an oversight agency. As discussed here, the collection of data needed for recycling rates can be challenging because both sales and recycling numbers are likely proprietary. Also, the trans-boundary nature of sales and recycling is a challenge for data collection on a state-specific basis. However, the ability to measure the success of any effort is important for all stakeholders.

California's AB 1109 Proposal on Metrics, André Algazi (California DTSC)

Multiple parties can set performance goals, including the legislature, third party organizations, or state government. When setting goals, agencies must decide on a metric to use such as weight, number of lamps collected, rate of collection, or convenience. The creation of performance goals is separate from holding someone responsible for meeting the goals and taking punitive action if the goals are not achieved, but this has not been addressed by the Task Force.

Calculating a Recycling Rate, Mark Kohorst (NEMA)

Massachusetts legislation in 2006 mandated that manufacturers implement lamp education recycling plans and provide data to measure their success relative to goals set in the legislation (described by Lisa Conley, above). NEMA has manufacturer sales data, but it is hard to collect state-specific sales data because the products are sold into regional and national distribution networks. So, NEMA calculated an estimate of the number of lamps sold in Massachusetts in 2007 based on several assumptions. These data were reported in aggregate on the certification forms submitted to the State. To calculate a recycling rate, manufacturers also had to estimate the number of lamps recycled, but they do not have access to this data. NEMA is working with ALMR to implement a confidential survey of lamp recyclers. Twenty-nine surveys were distributed to ALMR members and non-members believed to be recycling lamps collected in Massachusetts. To date, 14 responses have been received although some indicate only that they do not recycle lamps from Massachusetts.

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Discussion:

There was agreement that, unless data collection and reporting are required, recyclers, manufacturers, and other businesses will be reluctant to share information. In some cases, as in Massachusetts, the data requirement may be challenged as proprietary information with the claim that those to whom it applies do not have ready access to the information. In King County, recyclers participating in the TIBN have agreed to provide data on lamps recycled through the program to the County. (Lauren Cole, King County)

In Washington, the state agency collects data about a wide range of recyclables. The information is kept confidential as to individual collectors and processing points resulting in an estimated tonnage of each material recycled annually. (Suellen Mele, WCRC) The WA electronics law includes a requirement for recyclers to report and penalizes them if they do not, although it does not track out-of-state processing. (Jay Shepard, WA Ecology) One participant suggested an approach that starts with convenience metrics but allows a stewardship/third party organization to develop a baseline and set recycling rate goals for a specified number of years, with no enforcement or punitive action if the goals are not met. After a certain period of time, the state agency could then take enforcement action if the target rates are not met. Pounds collected per capita is another viable metric.

**A workgroup could review and discuss the presentations on performance goals given at the PSI Forum. (This was not assigned to an existing workgroup but will be raised for consideration.)

PARKING LOT ISSUES AND NEXT STEPS FOR WORKGROUPS, NEXT MEETING ***Draft Agenda Topics for Meeting #3***

- Presentation on lamp recycling standards and best management practices.
- The Green Lighting Campaign model state procurement policy (Alicia Culver).
- Manufacturing of CFLs in China and issues related to verification of product quality and materials used is of interest, if an appropriate manufacturer is available. How will the RoHS standards be applied and enforced in California? What retailers can do to set performance standards for suppliers.
- Environment Canada consultant presentation on recycling rate for batteries.
- USPS presentation on breakage study.

Workgroup Activities

Infrastructure Workgroup

- Gather information on best management practices for packaging and lamp transport in the case of collection at retail/other small collection sites. (Presentation by ALMR member; Mark Stennes volunteered to provide some information).
- Retailer survey (pending funding) is top priority.

The group *will not* conduct an infrastructure study similar to the paint project (presented by Dave Nightingale)

Bans and Enforcement Workgroup

- Paul and Rusty Lundberg will coordinate with PSI to compile a list of known enforcement actions. (Allison Watanabe will contact regional EPA offices).

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- Collect examples of artwork and messaging related to bans (e.g., Vermont effort) and make accessible
- Catalogue the various mechanisms for enacting bans—legislative, administrative rule, and local government mechanisms.
- Compile information on existing bans and document method in which they were passed.
- Develop 2-3 page case studies of MN, WA, FL, and MA on enforcement opportunities and challenges (laws/regulations, staffing, procedures).
- Hold a call with speakers familiar with making decisions related to enforcement to learn more about the decisions made to allocate resources to key enforcement actions related to lamp disposal.
- Define each sector (e.g, residential, small business, large commercial) and detail the nature of the ban within that context. (Suellen Mele (WCRC) will provide a draft definition for the sectors based on the Electronics Law.)

Financing Workgroup

- Collect data on sales per brand-owner of fluorescent vs. incandescent lamps
- Collect information on utility fee structures and rates

MISSING STAKEHOLDERS

The group identified the following stakeholders who they felt should attend the next meeting. PSI contacted many of these groups prior to the first meeting, but will make a concerted effort to reach them again. Some participants will assist PSI in contacting these groups.

- Retailers
 - Costco
 - The Home Depot
 - Ikea
 - RILA
 - WA Retailers Association
 - Northwest Grocery Association
 - WA food industry (independent grocers)
 - Lowe's
 - Target
 - Amazon
 - Ace
 - True Value
- Utilities:
 - PG&E
 - Southern California Edison
 - SMUD
 - Xcel Energy
 - Energy Star (through Ecos/Vicki)
 - CEE
 - NEEP
 - Edison Electric—would represent investor-owned utilities
 - Nancy Atwood at Puget Sound Energy (Sego)
 - Eric Poulsen WA PUD Association (Sego)

- Manufacturers
 - Feit (Mark; Vicki through EnergyStar)
 - TCP (Mark; Vicki through EnergyStar)
- Members of Joint/Senate committee in WA through Ashley and Jan
- SWANA
- NAHMMA
- Haulers & solid waste industry (in WA)
- National Caucus of Environmental Legislators--Adam Schafer (Michael)