

Conducting a Pilot Test

Guidelines for the Activity

I. INTRODUCTION to full group (5 minutes)

A pilot test is an evaluation process that is conducted to determine whether more environmentally sound/safer products, services or processes are available, reasonably priced (based on a total cost of ownership), and able to meet your performance needs.

The goal of this activity is to help attendees plan what will be needed to conduct an effective pilot test of safer alternative products, services or processes for Tribal operations. Participants will divide into 2-3 smaller groups with a trainer facilitating the discussion at each table. Two pilot test scenarios are provided along with a Pilot Test Worksheet to guide the group discussion.

Timing: Introduction (5 minutes), Group discussion (25 minutes), Report back (15 minutes)

Breaking into Groups: Pilot tests can be conducted to identify practical replacements for virtually any type of product category. In order to determine our groups for today's discussions, we'd like to know what types of products you most want to replace because they have significant health, environmental, and/or economic impacts – keeping with your sustainability goals (e.g., reducing greenhouse gas (GHG) emissions, minimizing the amount of waste you're generating, protecting tribal staff and the environment from toxic chemicals, etc.). We can draw from the list of products and wastes of concern that you developed earlier, including difficult-to-recycle items or come up with some new ones based on what you heard today.

Other examples may include:

- Toxic cleaning products, especially those that have strong health hazards for cancer, reproductive toxicity, corrosivity, flammability, etc. (including aerosols. Pilot tests can be conducted of certified low-toxicity cleaners that are concentrated and use automatic dilution equipment.
- Styrofoam food service ware, which is difficult to recycle, creates health risks during production and use, and contributes to plastic waste that can threaten fish and wildlife. Pilot tests can be conducted of reusable or BPI-certified compostable food service ware.
- Single-use batteries, which are difficult to recycle and expensive to continually replace, and contribute to GHG emissions due to shipping because they are heavy. Pilot tests can be conducted of rechargeable batteries and battery-free equipment.
- Fluorescent light bulbs, which contain mercury and are less efficient than LEDs. Pilot tests can be conducted of drop-in LED replacement bulbs and new LED fixtures.
- Bottled water, which contributes to plastic waste and GHG emissions due to shipping, and is expensive to provide on an ongoing basis. Pilot tests can be conducted of water bottle refill stations.
- Paper towels, which are expensive to provide on an ongoing basis (including costs for purchasing, labor and waste management), contribute to deforestation, and generate GHG emissions and other pollutants during manufacture, transportation and disposal. Pilot tests can be conducted of hand dryers, cloth towels, and paper towel composting systems.

II. PILOT TEST STEPS: Facilitated Small Group Discussion (25 minutes)

- Step 1: Discuss the product, service or process you want to change (within the chosen category), including the motivation for change (e.g., significant environmental, health and/or economic impacts).
- Step 2: Discuss key stakeholders that should participate in the pilot test and how to engage them. This will likely include the users of the product, health and safety staff, facility managers, clients who benefit from the results of

using the products, etc. Establish communication methods.

- **Step 3:** Discuss which types of safer/more environmentally preferable products, services or processes should be included in the pilot test. Examples may include:
 - Certified low-toxicity cleaning products to replace products with high hazards;
 - Reusable and/or certified compostable food service ware (if composting is available);
 - Rechargeable batteries or battery-less equipment;
 - LED lighting equipment (e.g., bulbs, lamps, fixtures);
 - Water bottle refill stations;
 - Electric hand dryers and/or composting systems for paper towels.

- **Step 4:** Discuss the criteria that could be used to determine whether the safer product, service or process is a practical replacement.
 - Product availability
 - Price (based on a total cost of ownership, including initial price, replacement cost, operation and maintenance costs, labor costs)
 - Performance (How well does the product work? Do users have to work more or less to achieve the same level of performance)

- **Step 5:** Complete tracking sheets to document how the pilot test would evaluate product availability costs and performance
 - Availability: Is it relatively easy to find safer products in the consumer marketplace or on state contracts?
 - Price: Is the safer product more or less expensive? Calculate (estimate) total cost of ownership:
 - **Initial cost** to upgrade lighting, install electric hand dryers or water bottle refill stations, invest in rechargeable batteries and chargers, etc.
 - **Money saved due to less product purchased** (e.g., reducing single-use batteries, paper towels, bottled water, concentrated cleaners)
 - **Electricity costs** (from hand dryers) or electricity cost savings (e.g., by replacing fluorescent tube lamps with more efficient LEDs)
 - **Time spent** (e.g., labor savings associated with restocking paper towel dispensers by installing electric hand dryers; time savings changing light bulbs by replacing conventional lighting with LEDs; comparing the number of times batteries need to be replaced when using single-use alkaline batteries versus rechargeables)
 - **Cost savings from reduced waste** by switching from RTU cleaning chemicals to concentrates, using disposable batteries instead of rechargeables, upgrading mercury-containing lamps to LEDs, or replacing paper towel dispensers with electric hand dryers
 - Performance
 - Did the low-toxicity product clean as well as the conventional product?
 - Did the single-use or rechargeable battery need to be changed more (or less) often?
 - Were there any environmental or health tradeoffs or challenges to be aware of?

III. REPORT BACK (15 minutes): Report back key pilot test and implementation steps to full group

- What message(s) about the safer product would resonate most with your stakeholders?
- What steps would you take to compare the safer product to the conventional one in terms of price?
- Were there any higher costs associated with the safer product?
- Were there any lower costs associated with the safer product?
- Would the safer product increase or decrease maintenance costs? How?
- How would you compare the safer product to the conventional one in terms of performance?
- How would you communicate and implement the successful results of the pilot test?