US ERA ARCHIVE DOCUMENT

## Environmental Stewardship Program Environmental Performance Table

The Environmental Performance Table (EPT) contains the set of environmental indicators and measurement units that ESP applicants and members use as the basis for creating environmental performance commitments.

## **Organization and terminology**

The EPT is organized into a hierarchy of groupings:

- Life-cycle stages reflect where in the life cycle of a facility's process a specific environmental impact occurs. The upstream stage contains those environmental impacts that occur before a facility's processes begin. Indicators within this stage's categories describe the environmental characteristics of the materials that you purchase from your suppliers or the environmental improvements that you caused in your suppliers' environmental performance. The input stage encompasses the impacts from resources (materials, energy, and water) that are added to processes at your facility. The non-product output stage includes the impacts from the outputs of your facility's processes, except for product and product-related materials such as packaging. The downstream stage includes the impacts from your facility's activities and decisions that occur after your processes. Indicators within this stage address the environmental characteristics of your products.
- Categories are groups of indicators related to a specific environmental impact.
- **Indicators** are the specific measurements of individual impacts that can be used to track and demonstrate improvement in that area. Each indicator is accompanied by one or more **measurement units** that may be used as the basis of reporting performance with respect to the specific indicator.

## **Selection Considerations**

When developing your set of environmental performance commitments, please follow these criteria for selection, measurement, and reporting:

- a. Select commitments from a minimum of two different categories, with a maximum of two indicators per category.
- b. Use the indicators and the measurement units provided in this table. These indicators and measurements were chosen because they are common to widely-used reporting protocols. Additionally, standardized measures allow ESP to report on the progress of ESP participants as a group.
- c. All commitments should reflect facility-wide measurements. For example, while a facility may focus its efforts to reduce solvent usage on one particular process, the reported measurement should be of the solvent's usage across the entire facility. Facility-wide measurements demonstrate that the facility is aware of its performance for this indicator across all of its activities and is therefore in the best position to identify the greatest opportunities to improve on this indicator. Facility-wide measurements also provide necessary context for the public.

Btu

= British thermal units

- d. If the EPT includes the parenthetical "(total or specific)," you may choose to focus your commitment on a specific subset of that indicator. For example, for VOCs, you might choose to report on all (the total amount of) VOC emissions at your facility, or you might instead choose to report only on ethane. If the "total or specific" option is not noted for the particular indicator, then please provide total amounts.
- e. If you select an indicator that is currently regulated, then your commitment must go beyond regulatory requirements.
- f. As a general rule, commitments should relate to the life cycle of the facility's products or services. (The facility's administration, utilities, and grounds are considered part of this life cycle.) Some indicators do allow for projects that are outside of the facility's normal operations, i.e., indicators in the Land and Habitat category. A facility's set of commitments is limited to one commitment that is not related to the life cycle of its products or services.
- g. Ensure that there is no redundancy ("double-counting") among the indicators that you have selected. In other words, avoid including the same performance information in more than one measurement. For example:
  - If you make a commitment to reduce materials use and are considering the
    possibility of a commitment to reduce solid waste, please determine whether the
    materials being considered for reduction are a significant component of the solid
    waste stream. If so, any reductions in the use of the material will result in
    reductions in solid waste, thus leading to double-counting. In that case, please
    avoid the selection of the solid waste commitment in favor of another
    environmental category.
  - If you make a commitment to reduce Total Materials Use, it would be redundant to also make a commitment to reduce a specific material.
  - Since greenhouse gas emissions are largely the result of energy choices, in most cases the selection of commitments to reduce energy use and to reduce greenhouse gases would lead to double-counting.

MMBtu

= Million metric British thermal units

**Abbreviations.** The following abbreviations are used in the table:

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BOD	<ul> <li>Biological oxygen demand</li> </ul>	MPN	=	Most probable number
CFC	= Chlorofluorocarbons	$MTCO_2E$	=	Metric tons of CO <sub>2</sub> equivalents
CFU	= Colony forming units	MWh	=	Megawatt hours
CO	= Carbon monoxide	N	=	Nitrogen
COD	<ul> <li>Chemical oxygen demand</li> </ul>	NOx	=	Nitrous oxides
dBA	<ul> <li>Decibels adjusted to measure human</li> </ul>	P	=	Phosphorus
	response to sound	PM	=	Particulate matter
GHG	= Greenhouse gases	SOx	=	Sulfur oxides
kWh	= Kilowatt hours	VOC	=	Volatile organic compounds

Material Procurement   Recycled content (Total or specific)   Pounds, tons   Hazardous/toxic components (Total or specific)   Pounds, tons   Pounds, tons   Pounds, tons   As specified for the particular indicator   Any relevant indicators from the Inputs or   As specified for the particular indicator   Any relevant indicators from the Inputs or   As specified for the particular indicator   Any relevant indicators from the Inputs or   As specified for the particular indicator   Any relevant indicator   As specified for the particular indicator   Any specified for the particular indicator   As specified   Pounds, tons   Pound	Category	Indicator	Units			
Material Procurement   Suppliers'   Environmental Performance   Any relevant indicators from the Inputs or Nonproduct Outputs stages   As specified for the particular indicator   As specified for						
Material Procurement   Suppliers'   Environmental Performance   Any relevant indicators from the Inputs or Nonproduct Outputs stages   As specified for the particular indicator   As specified for	Marian	Recycled content (Total or specific)	Pounds, tons			
Environmental   Performance	Material Procurement		Pounds, tons			
Nonproduct Outputs stages   indicator		Any relevant indicators from the Inputs or	As specified for the particular			
Stage: Inputs						
Materials used (Total or specific)	Performance					
Material Use         Hazardous materials used (Total or specific)         Pounds, tons           Ozone depleting substances used (Total or specific)         CPC-11 equivalent tons, CFC-1 equivalent tons, CFC-1 equivalent pounds           Total packaging materials used         Pounds, tons           Water Use         Total water used         Gallons           Energy Use         Total (non-transportation) energy use by fuel type transportation energy use (Total or specific)         kWh/MWh, gallons, cubic feet           Land and Habitat         Community land revitalization         Square feet, acres           Stage: Nonproduct Outputs           Total GHGs         MTCO2E           VOCs (Total or specific)         Pounds, tons           NOx         Pounds, tons           SOx         Pounds, tons           PM10         Pounds, tons           CO         Pounds, tons           Air toxics (Total or specific)         Pounds, tons           Odor         European Odour Units           Air Emissions         Radiation         Curies, Becquerels           Dust         Pounds, tons           Dust         Pounds, tons           Discharges to Water         Total suspended solids         Pounds, tons           Nutrients (Total or specific)         Pounds, tons	<u> </u>					
Material Use			*			
Specific   Total packaging materials used   Pounds, tons	Matarial IIaa	· · · · · · · · · · · · · · · · · · ·	,			
Water Use         Total water used         Pounds, tons           Energy Use         Total (non-transportation) energy use by fuel type         kWh/MWh or Btu/MMBtu           Land and Habitat         Transportation energy use (Total or specific)         kWh/MWh, gallons, cubic feet           Land and Habitat         Square feet, acres           Stage: Nonproduct Outputs           Total GHGs         MTCO2E           VOCs (Total or specific)         Pounds, tons           NOx         Pounds, tons           SOx         Pounds, tons           PM1.0         Pounds, tons           PM1.0         Pounds, tons           Air toxics (Total or specific)         Pounds, tons           Odor         Pounds, tons           Air Emissions         Radiation         Curies, Becquerels           Dust         Pounds, tons           Obor         Pounds, tons           Dust         Pounds, tons           Discharges to Water         Toxics (Total or specific)         Pounds, tons           Discharges to Water         Total suspended solids         Pounds, tons           Total suspended solids         Pounds, tons           Total suspended solids         Pounds, tons           Nutrients (Total or specific)         Pounds, tons </td <td>Material Ose</td> <td></td> <td>_</td>	Material Ose		_			
Water Use         Total water used         Gallons           Energy Use         Total (non-transportation) energy use by fuel type         kWh/MWh or Btu/MMBtu           Land and Habitat         Land and habitat conservation         Square feet, acres           Stage: Nonproduct Outputs           Air Emissions         Total GHGs         MTCO2E           VOCs (Total or specific)         Pounds, tons           POUNDS, tons         Pounds, tons           PM2.5         Pounds, tons           PM10         Pounds, tons           PM10         Pounds, tons           Air toxics (Total or specific)         Pounds, tons           Odor         European Odour Units           Radiation         Curies, Becquerels           Dust         Pounds, tons           COD         Pounds, tons           BOD         Pounds, tons           Toxics (Total or specific)         Pounds, tons           Discharges to Water         Total suspended solids         Pounds, tons           Discharges to Water         Total or specific)         Pounds, tons           Total or specific)         Pounds, tons           Total suspended solids         Pounds, tons           Nutrients (Total or specific)         Pounds, tons <td></td> <td>1 ,</td> <td></td>		1 ,				
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Land and Habitat         Land and habitat conservation         Square feet, acres           Community land revitalization         Square feet, acres           Stage: Nonproduct Outputs           Total GHGs         MTCO2E           VOCs (Total or specific)         Pounds, tons           NOx         Pounds, tons           SOx         Pounds, tons           PM2.5         Pounds, tons           CO         Pounds, tons           Air toxics (Total or specific)         Pounds, tons           Odor         European Odour Units           Radiation         Curies, Becquerels           Dust         Pounds, tons           COD         Pounds, tons           BOD         Pounds, tons           Toxics (Total or specific)         Pounds, tons           Toxics (Total or specific)         Pounds, tons           Nutrients (Total or specific)         Pounds, tons of Total N or P           Sediment from runoff         Pounds, tons           Pathogens (Total or specific)         MPN/ml, CFU/ml           Non-hazardous waste generation, broken down by management method (Total or specific)         Pounds, tons           Noise         Noise         dBA           Vibration         Vibration         Inches per se	Energy Use					
Community land revitalization   Square feet, acres		, <u>, , , , , , , , , , , , , , , , , , </u>	· ·			
Total GHGs	Land and Habitat		•			
Total GHGs		•	Square feet, acres			
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Air Emissions    Odor						
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Discharges to Water    Toxics (Total or specific)   Pounds, tons						
Discharges to Water  Total suspended solids  Nutrients (Total or specific)  Sediment from runoff  Pounds, tons of Total N or P  Pounds, tons  Pathogens (Total or specific)  Non-hazardous waste generation, broken down by management method (Total or specific)  Hazardous waste generation, broken down by management method (Total or specific)  Noise  Noise  Noise  Noise  Vibration  Pounds, tons  Pounds, tons  Pounds, tons  Pounds, tons  Pounds, tons  Inches per second						
Nutrients (Total or specific)  Sediment from runoff Pathogens (Total or specific)  Waste  Non-hazardous waste generation, broken down by management method (Total or specific)  Noise  Noise  Noise  Noise  Nutrients (Total or specific)  Pounds, tons  Pounds, tons  Pounds, tons  Pounds, tons  Pounds, tons  ABA  Vibration  Noise  Inches per second	D' 1	•	*			
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Pathogens (Total or specific) MPN/ml, CFU/ml  Non-hazardous waste generation, broken down by management method (Total or specific)  Hazardous waste generation, broken down by management method (Total or specific)  Noise Noise Noise dBA  Vibration Vibration Inches per second		• •				
Waste    Non-hazardous waste generation, broken down by management method (Total or specific)   Pounds, tons						
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Vibration Vibration Inches per second	Noise		dBA			
า เมนะ 6. มีวิบิพิโภม 6นแน	Stage: Downstream					
Expected lifetime energy use (Total or specific) kWh/MWh or Btu/MMBtu			kWh/MWh or Btu/MMBtu			
Expected lifetime water use (Total or specific) Gallons						
Expected lifetime waste (to air_water_land) from	D 1 4		Pounds, tons			
Products   Expected fricting waste (to air, water, failed) from   Pounds, tons	Products	*				
Waste to air water land from disposal or			Dougle tons			
recovery (Total or specific)  Pounds, tons			Pounds, tons			