

# Measuring Success

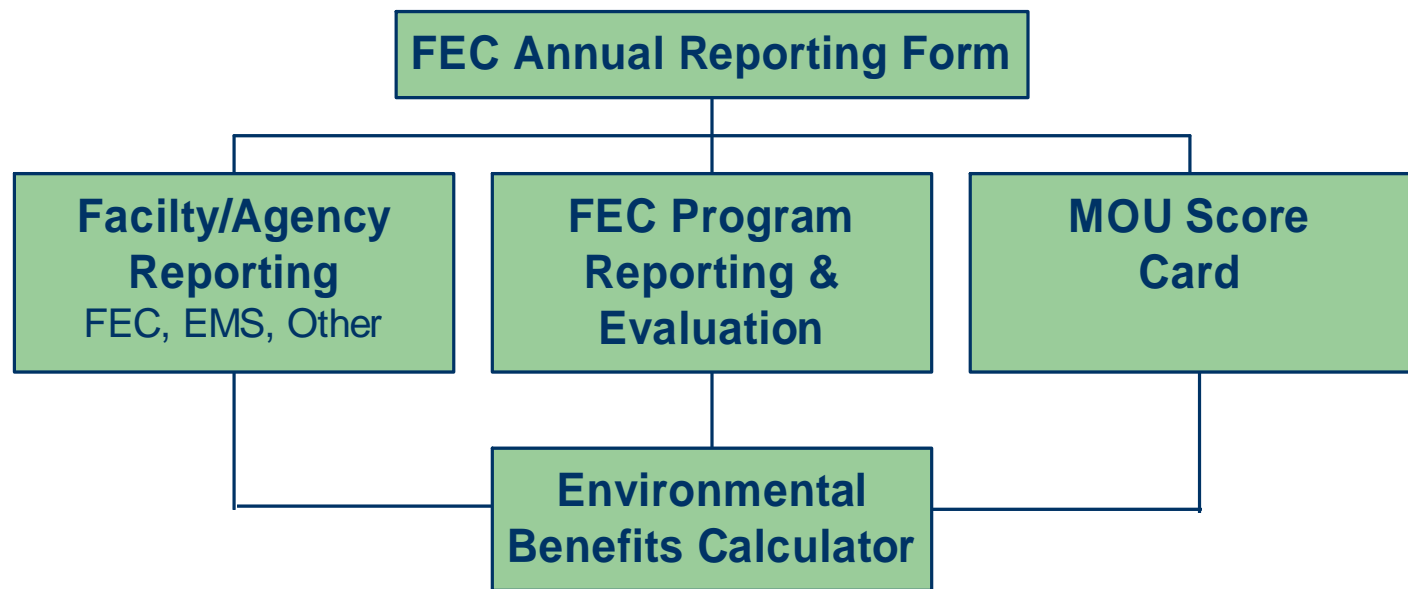
**Federal Electronics Stewardship Conference**  
**February 7-8, 2006**

**Patricia Dillon**  
**Dillon Environmental Associates**

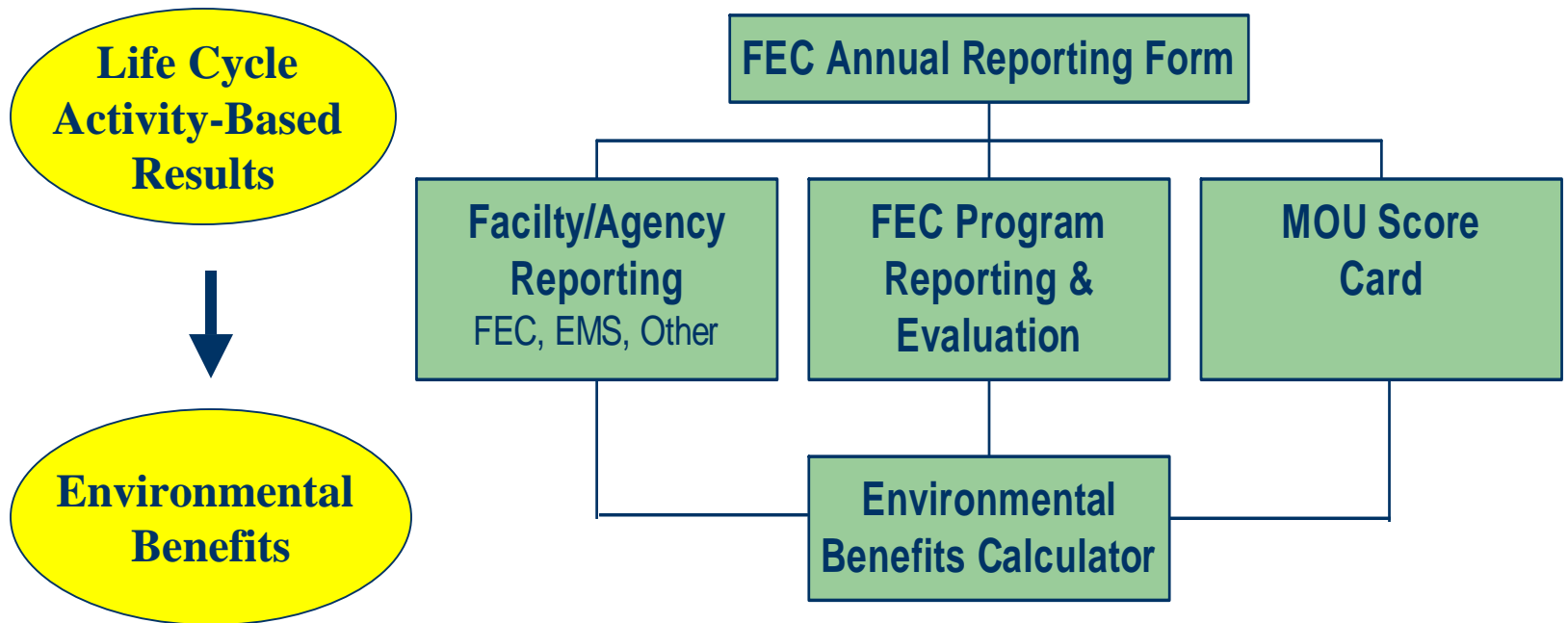
# Presentation Overview

- Overview of Data Collection and Reporting
- FEC Annual Reporting Form
- Electronics Environmental Benefits Calculator
- Calculator Demonstration (after lunch)

# Data Collection and Reporting



# Reporting Results



# FEC Annual Reporting Form

- Requests data on three life cycle phases
  - Acquisition and Procurement
  - Operations and Maintenance
  - End-of Life Management
- Measures progress towards FEC National Program Goals and MOU Goals
- Provides data inputs for Electronics Environmental Benefits Calculator

# FEC National Program Goals

## **By 2008**

- 95% of computer units purchased are EPEAT Bronze qualified or higher
- 100% of computer units have an average life span of at least four years
- ENERGY STAR® features are enabled on 100% of computer monitors in operation
- 100% of non-reusable computer units are recycled using environmentally sound management

# Electronics Environmental Benefits Calculator

- Calculates environmental benefits of improved life cycle management of electronics
  - Procurement of EPEAT-registered products
  - Operations and maintenance
  - Equipment reuse and recycling
- Translates performance criteria and activities into estimates of quantifiable environmental benefit

# Calculator Examples

<b>Activity/Criteria</b>	<b>Benefit</b>
RoHS Compliance	<ul style="list-style-type: none"><li>● Quantity of toxic heavy metals avoided – total and breakdown</li><li>● Hazardous waste reduction</li></ul>
Energy Star Compliance	<ul style="list-style-type: none"><li>● Greenhouse gas emission reduction</li><li>● Energy savings</li><li>● Cost savings</li></ul>
Use of Post Consumer Recycled Plastic	<ul style="list-style-type: none"><li>● Greenhouse gas emission reduction</li><li>● Energy savings</li><li>● Material conservation</li><li>● Municipal solid waste reduction</li></ul>
Equipment Reuse & Recycling	<ul style="list-style-type: none"><li>● Greenhouse gas emission reduction</li><li>● Energy savings</li><li>● Material conservation</li><li>● Municipal solid waste reduction</li><li>● Hazardous waste reduction</li></ul>

# Calculator Features

- User friendly Excel spreadsheet
  - Download from FEC website
  - Future web-based application
- Flexible
  - User inputs, based on data availability
  - Modularity allows 1, 2 or 3 life cycle phases
  - Several analysis options for procurement
    - Basic analysis of EPEAT qualified purchases
    - Customized analysis that overrides default values
    - Major environmental attributes, less than EPEAT

## Sample Data Agency Can Get from Environmental Benefits Calculator

**Purchase 1000 EPEAT qualified products**  
**Donate 200 computers**  
**Recycle 1000 computers**

Agency achieved the following environmental benefits:

- X kWh of energy use reduced
- X pounds of GHG emissions reduced
- X pounds of toxic materials and hazardous wastes reduced
- X pounds of non-hazardous materials reduced
- X pounds of air and water emissions reduced
- X pounds of waste diverted from landfills
- X dollars of costs reduced or saved

# Calculator Results

- Quantities
- Graphs of results
- Equivalents

**Demonstration After Lunch**