Achievements

PR Site Energy Savings and CO2 Reductions

Energy Cost Savings

Energy Savings

CO2 Reduction

Pfizer Puerto Rico Operations
Achievements

Colleague Awareness Effort

– **Usage of Engineering Tools**
  - Electricity Consumption Continuous Monitoring
    - responsible for ~$2.3 MM in savings in last 2 years
  - Utilities / Energy Assessments
  - HVAC Modeling: Optimize air changes / %RH
  - Energy Networks Participation (internal and external)

– **Communications**
  - Monthly Operations Review Meetings Reporting
  - Colleague Awareness / Recognition
    - EHS Awards / Green Building / Nomination to T&I
    - Awareness Campaigns

Main Initiatives

- **Air Conditioning Modifications ~ $6,800M**
  - Shut off non production areas during non working hours
  - Reduce air changes / fresh air
  - Chilled Water System Modifications

- **Lighting Retrofits ~ $550M**
  - Reduce number of lamps
  - Install Higher Efficiency / Sensors

- **Compressed Air Improvements ~ $1,400M**
  - Improve system pressure control / Reduce operating pressure
  - Leaks repairs

- **Steam System Modifications ~ $600M**
  - Improve Boilers Controls / Recover Waste Heat
  - Reduce System pressure
Main Initiatives

- Water Usage Reduction/Reuse ~ $400M
  - Installation of waterless urinals
  - Installation of low consumption nozzles and shower heads
  - Increase concentration cycles in cooling towers / Reuse of HVAC condensate
  - Water Treatment / Reuse

- Others ~ $6,550M
  - Consolidate operations / office space
  - Shut off non critical systems during non production hours (Vacuum, hoods)
  - Replace low efficiency motors / Increase Power factors
  - Continuous Monitoring Systems
  - Use of RFT tools for Operations optimization

Energy Conservation Program

- Future Initiative Focus - 10-15%/yr target
  - Heat machines for hot water requirements
  - Air Dryers Elimination
  - Barceloneta API HVAC reduction
  - HVAC Operational Setting and Controls
  - Energy use monitoring and grass roots colleague conservation program
  - Utility Operational Efficiencies
Renewable Energy Project

VB Location – Wind Turbines
Potential Location

NRG TallTower™
Installation Manual and Specifications

For illustration only

Recycling Program
Pfizer Pharmaceuticals LLC
Puerto Rico
Background

BEFORE
- Less than 20% of the total waste generated was recycled
- There were difficulties to find suppliers qualified by Pfizer for recycling services
- There were budget restrictions and high costs associated to the enlargement of the recycling program
- High cost for non-hazardous waste disposal

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Pfizer Concerns on Solid Wastes Recycling
- EPA is taking a more assertive participation in regulating Municipal Landfills, taking a stronger enforcement against the landfill operations
- Recycling companies are dependent on volume to obtain profit
- Cost of segregating and managing the received material are high
Potential Opportunities

- Contracting a Recycling company instead of a Waste Disposal company for handling wastes:
  - Standardize prices for service
  - Reduce service cost
  - Increase recycling materials
  - Waste minimization
  - Reduction of incineration materials

Reciclaje del Norte: Proposal

- Can manage our recyclable materials, having a full time expert to identify opportunities, identifying new markets for other waste streams.
- Minimum impact to current Janitorial services. No additional tasks to them.
- No additional resources to handle recycling programs.
This project, not only represents cost savings to the region, but minimizes Pfizer’s environmental footprint in Puerto Rico.

Segregation: Employee Participation
Results

- **Barceloneta**
  - Cost reduction for non special waste of 42% from 2006 to 2007 ($170,000/yr approximately)
  - Increased the recycling rate of the non-special waste from 59% to 79%

- **Caguas**
  - Program began in December 2006
  - Increased the recycling rate from 16% to 45% for the first month in 2006
  - Increased from 45% to 80% the first semester of 2007 for all the routine waste generated

Results (cont)

- **Vega Baja**
  - Program began in April 2007
  - Increased the recycling rate of the non-special waste from 25% to 83%

- **PR sites cost reduction of $325,000/yr approximately**
- **Significant increase in types of materials recycled for all PR sites**
Statistics

Non Hazardous Waste Generation Percentage by Location

- Barceloneta: 49%
- Caguas: 24%
- Vega Baja: 27%

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Statistics

Non Hazardous Waste Generation by Location

- Barceloneta: 5,085,976, 77%
- Caguas: 5,646,553, 77%
- Vega Baja: 10,287,622, 72%

Pfizer Puerto Rico Operations

Pfizer will leverage “green” consensus standards in a manner consistent with Pfizer’s values and commitment as a good Corporate Citizen. Pfizer will integrate green building strategies into our building management and construction processes to ensure the delivery of business value in a way that focuses on facility lifecycle/project first-cost balance while minimizing environmental impact.
Environmental Economies

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<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>3-Year Total</th>
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<td>Saved Trees</td>
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<td>Oil (Gallons)</td>
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<td>Landfill (cu. yds)</td>
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<td>11,361</td>
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Opportunities

- Continuous evaluation of waste streams to capture recyclable material
- Evaluate and implement reusable gowning were applicable
- Reduce overall non-hazardous waste generation
- Manage domestic waste
- Simplify/ Reduce packaging components
Commitment

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Q&A

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