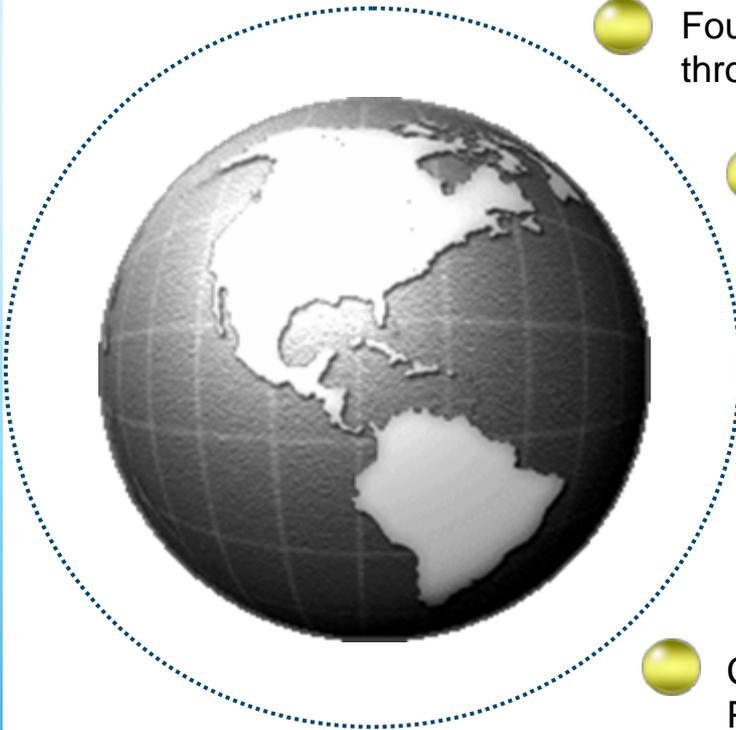




ecos

USDA Forest Service
2007 Sustainable Operations Summit
11.15.07

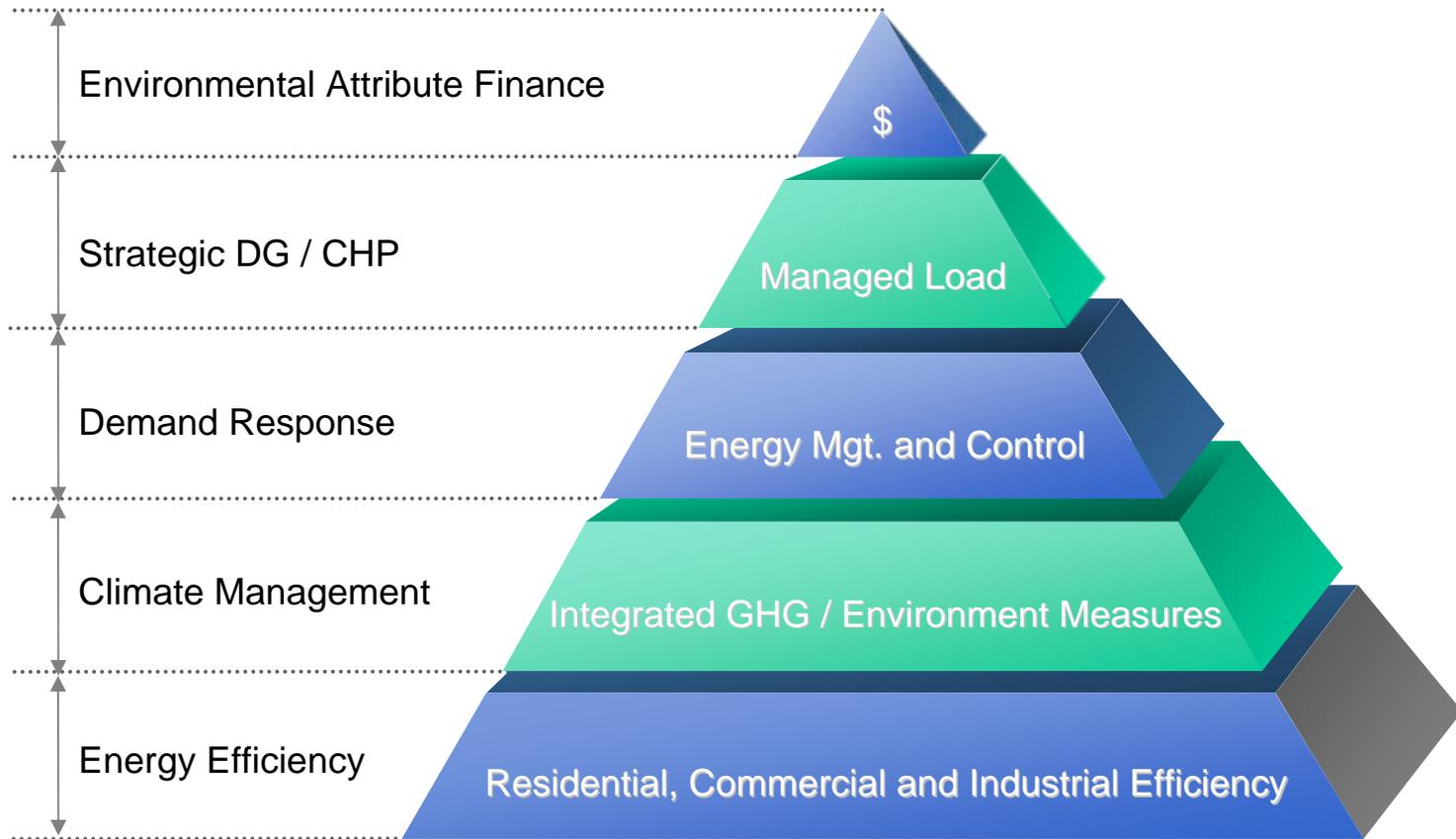
Ecos - Highlights



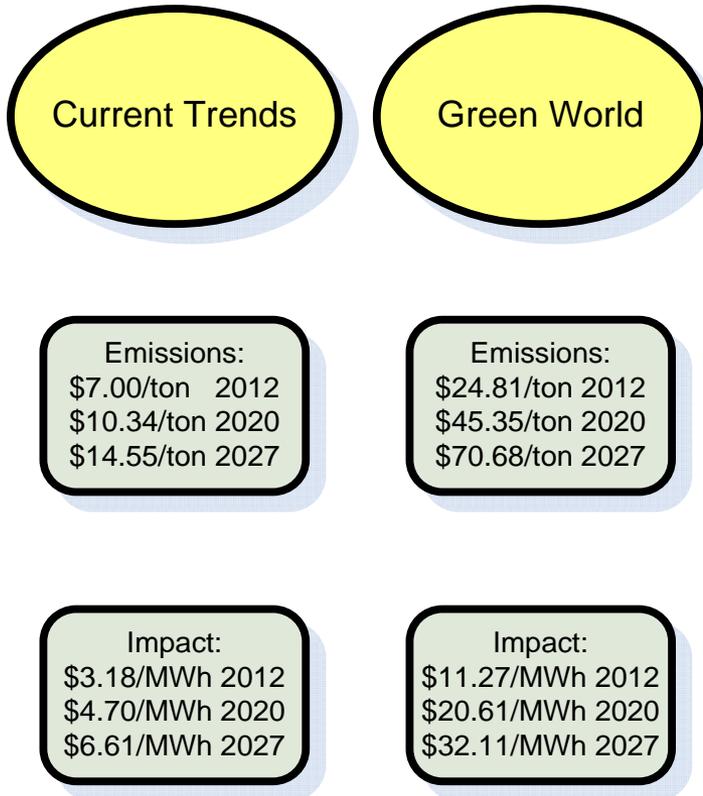
- Founded in 1996, Ecos delivers climate change solutions through an energy efficiency platform
- Headquartered in Portland with offices in San Francisco, Bellevue, WA and Durango, CO
- 100 employees focused on energy efficiency services, climate and sustainability solutions research, policy and marketing
- Ecos has managed over 435 projects throughout the United States and Canada since 1996
- Clients include Puget Sound Energy, Yellowstone National Park, Simplot, Best American Foods, Environmental Protection Agency, City of Bainbridge, DOE, PG&E, Rocky Mountain Power, Nevada & Sierra Pacific Power, NEEA and many others

Our Vision

Leading integrated demand side service platform focused on climate change mitigation



View of Objectives



Changes to emission factor will affect figures

OBJECTIVES

Position client as proactive and solution oriented with its customers as it takes steps to address energy management as a key solution to climate goals and other climate / energy concerns

Establish basis for long-term, **more effective operational advantages via various energy efficiency, climate, load management and environmentally sustainable business practices**

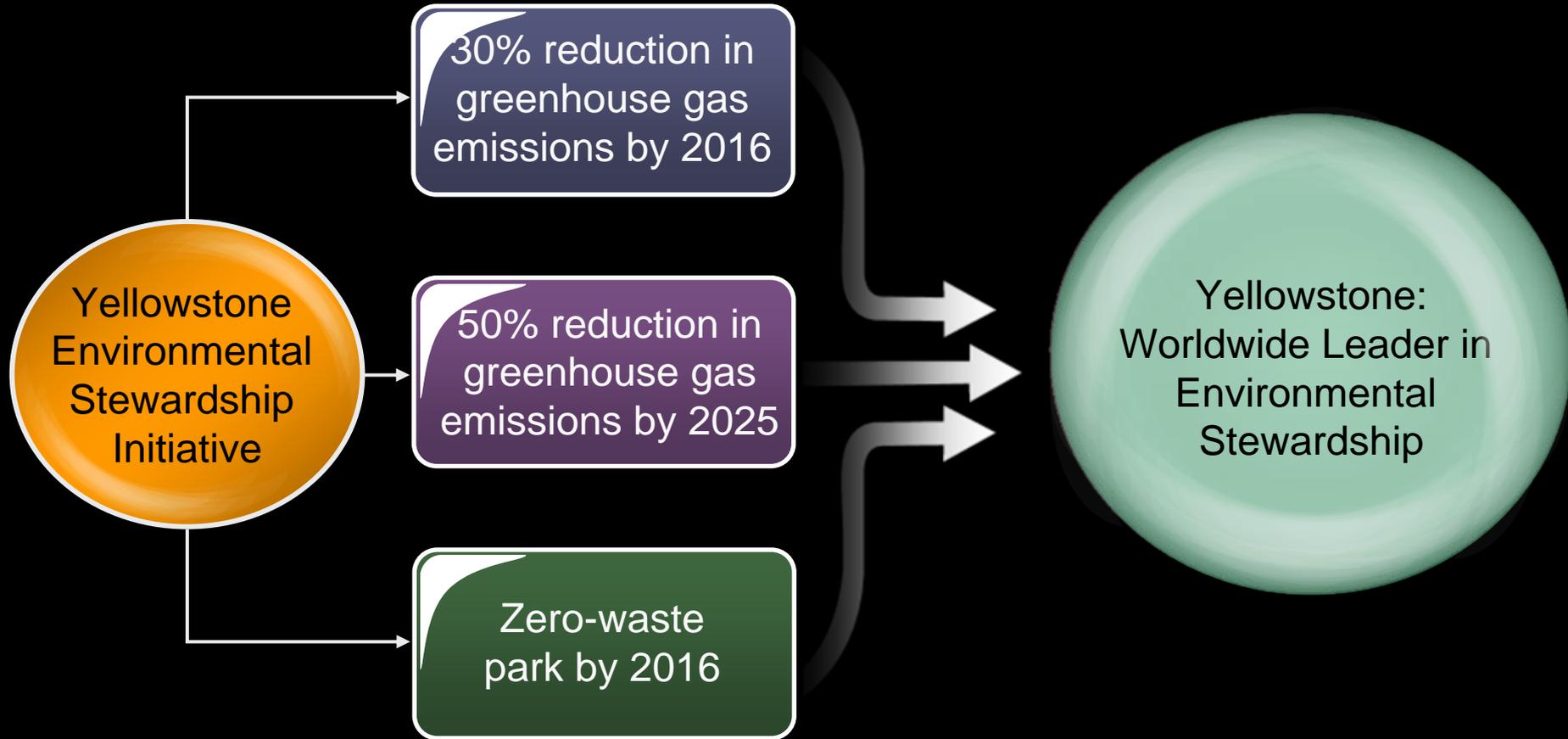
Optimize energy management and effectiveness to deliver the best solutions

Increase energy savings as a result of the increased commitment to energy efficiency, better internal alignment on environmental goals, continuous measurement through key performance indicators, the Greenhouse gas inventory and action plan, and improved reporting and tools.

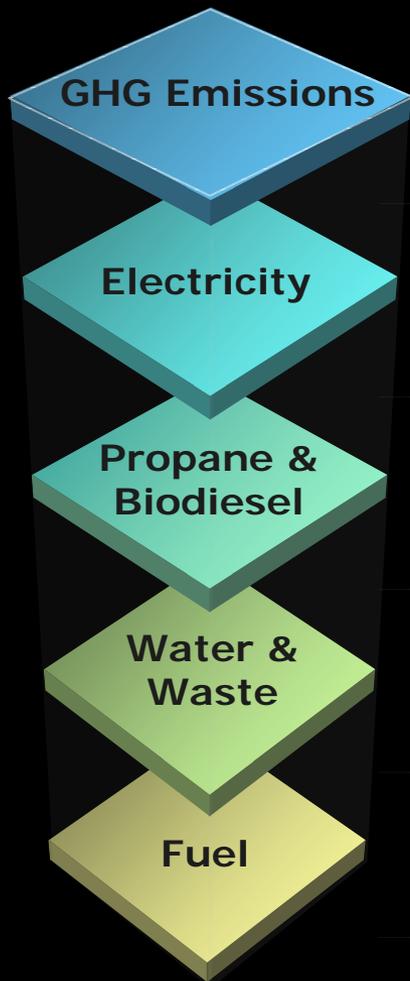
Create opportunities for client to market their environmental and climate success stories

Sample utility IRP projected carbon adder

Vision for Environmental Stewardship



Environmental Impact Baseline



- GHG emissions totaling 40,189 metric tons of CO₂ equivalents from operations

- 26,749,000 kWh of electricity used totaling \$3 million

- 675,500 gallons of propane and 632,000 gallons of biodiesel used for heating costing \$2.6 million

- 1.2B gallons of water consumed and 1,154 tons of waste brought to landfill

- 570,000 gallons of fuel consumed for transportation totaling \$1.7M

Initiative Launch Projects

Leadership

13 Projects

- Provide clear directive to Park staff
- Improve communication
- Empower Park staff

Objective

- Establish environmental guidelines and promote stewardship mentality

Expense

- \$1.5 million

Energy

17 Projects

- Reduce energy expense by \$766,000 per year
- Reduce CO₂ emissions by 5,000 metric tons per year

Objective

- Improve energy use while decreasing expense and mitigating climate impact of operations

Expense

- \$10 million

Water

7 Projects

- Reduce consumption by 56 million gallons
- Reduce expense by \$490,000 per year

Objective

- Improve efficiency of water use while decreasing expense

Expense

- \$1.5 million

Initiative Launch Projects

Transportation

10 Projects

- Reduce CO₂ emissions by 175 metric tons per year
- Reduce expenses by \$20,000 per year

Objective

- Reduce GHG emissions

Expense

- \$2.2 million

Waste Mgt.

10 Projects

- Divert 576 tons of waste from landfill

Objective

- Build upon waste management success and target zero waste by 2016

Expense

- \$595,000

Procurement

10 Projects

- Institutionalize green procurement standards

Objective

- Create comprehensive strategy to further reduce waste and associated GHG emissions

Expense

- \$57,000

Energy Projects

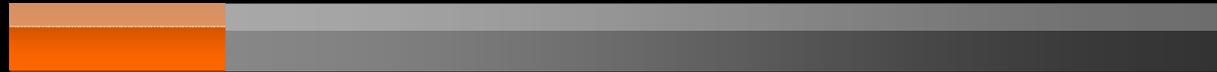
Mammoth Micro-hydropower: Install a 115 kW hydro turbine to generate clean energy.

Cost: \$1.5 million

GHG Reduction: 695 MTCO₂e / yr

Electricity Generation: 900,000 kWh / yr

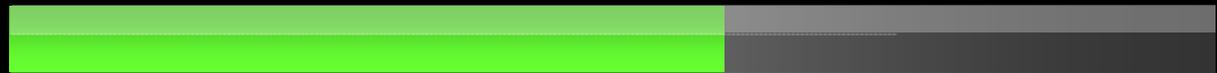
Initial Investment



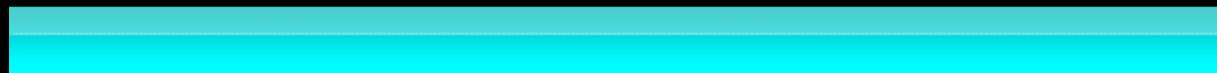
Duration



Viability



Interpretive Value



PR Potential



Impact Reduction



0 1 2 3 4 5

Vision for Environmental Stewardship

2008

2016

2025

Phase I Foundational Successes 67 Projects

\$15.6M in public / private partnership funds

67 projects yield:

- 14% GHG reduction
- 5.2 M kWh saved
- 56 M gallons water saved
- 576 tons diverted
- Stewardship culture
- Project ID mechanisms

Phase II 2016 Goal Attainment

\$19.4M in public / private partnership funds

Projects yield:

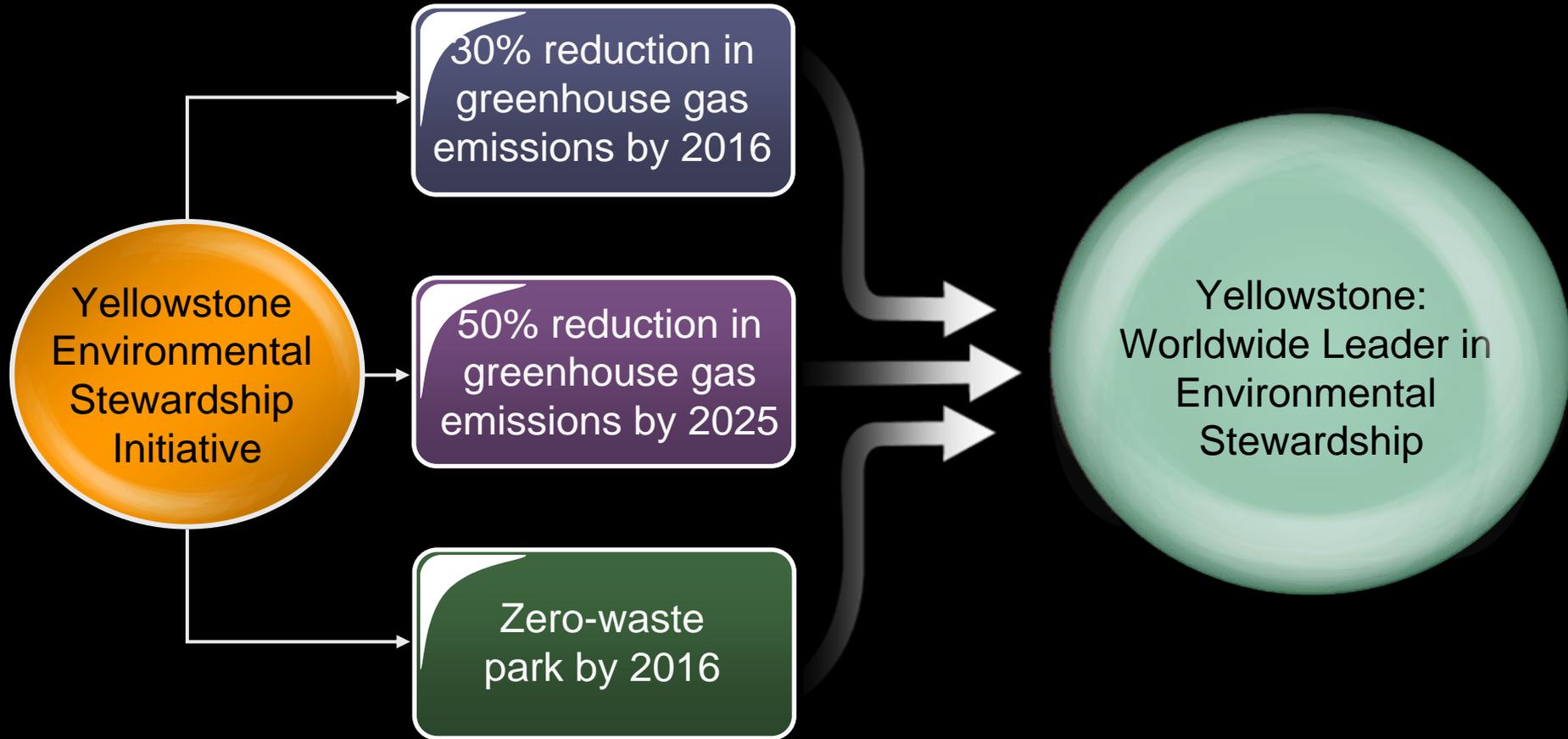
- 16% GHG reduction
- Zero waste park

Phase III Future Phase

Goal to reduce GHG emissions to 50% of 2006 levels by 2025

Leveraging operational successes from within the Park

Vision for Environmental Stewardship



Leadership Elements

- Cultural change
- Continuous learning organization
- Resources/Education/Funding
- Communication tools
- Top-down/Bottom up
- Strategy
- Safety analogy

Contact Information

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