

Reaching the Public - *Energy & the Environment* at OMSI – June 21, 2012



OMSI – Building Our Future

Science centers contribute to economic vitality of a community ... [They] enhance the quality of life and make a community attractive to a knowledge-based workforce.

-Association of Science – Technology Centers (ASTC)

- For over 60 years, OMSI has been a nexus of public, academic and business interest in building science literacy
- OMSI's target audiences include families, youth, teachers, and adults
- OMSI reaches:
 - About 1 million visitors a year at our museum in Portland
 - 90,000 field trip students each year
 - About 200,000 people per year through outreach programs across the Northwest



OMSI's New Strategic Focus and Priorities

Energy and the Environment:

Position OMSI as the Northwest's premiere public education resource in the field of Energy & the Environment with content that is:

- relevant to our audiences
- focused on understanding the science behind the issues and catalyzing action, and
- **showcases the work of our partners.**

Development of this goal keyed off of community needs and interests, partnerships, and national education trends (e.g. Department of Energy's Energy Literacy Standards, National Science Foundation priorities, others)

OMSI Strategic Goals

- Be the Northwest's premier public education resource in the area of *Energy and the Environment*
- Be a place that moves people, catalyzing them to take action toward a healthy and sustainable society
- **Be the bridge that connects meaningful discoveries in academia and industry with the public**
- A place where people turn, regardless of age or background, to understand and be engaged in the science behind important issues and innovations of our time.

Energy and the Environment **education goals**

- Engage learners with highly relevant science:
 - Environmental science and earth systems
 - Renewable energy sources
 - Sustainable choices and technologies
- Provide tools for informed decision-making
- Facilitate learning that catalyzes action
- Serve as a community resource for information on energy, sustainable practices, and science behind issues
- Advance OMSI sustainability goals and serve as a resource for others in the community to learn about sustainable practices



Findings from *Renewable Energy* Exhibit Audience Research

Knowledge of Renewable Energy Sources = Good

- Most respondents could name sources of renewable energy, and many held good working definitions of “renewable”

Where does electricity come from?

- Over half didn’t know specific sources of their home or business’s electricity

What would you most like to learn about?

In overwhelming numbers, people cited learning about direct actions they could take or technologies they could implement. Examples:

- Energy efficiency to save money and energy
- Information on at-home renewable installations such as solar and the costs associated with them
- Information on what renewable or alternative energy options are available to them at home or work

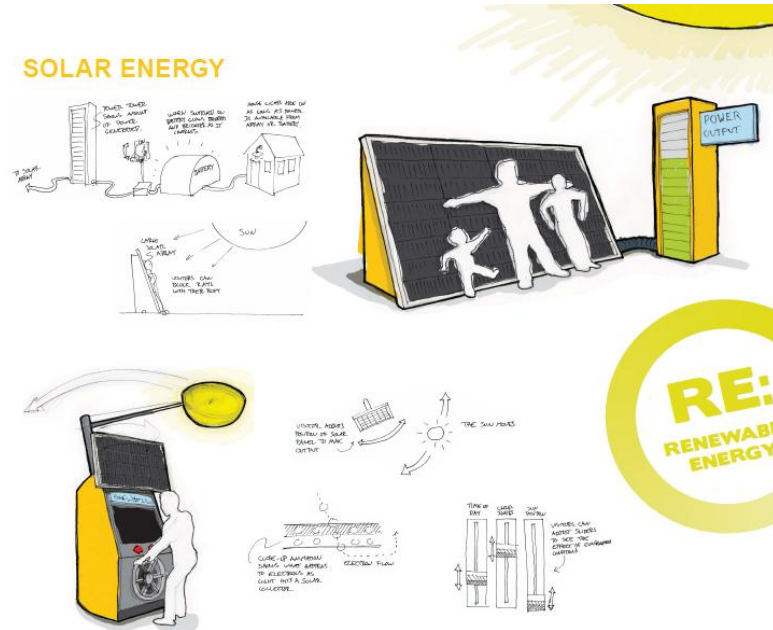
Renewable Energy Exhibit

Timeline: Opens December 2012

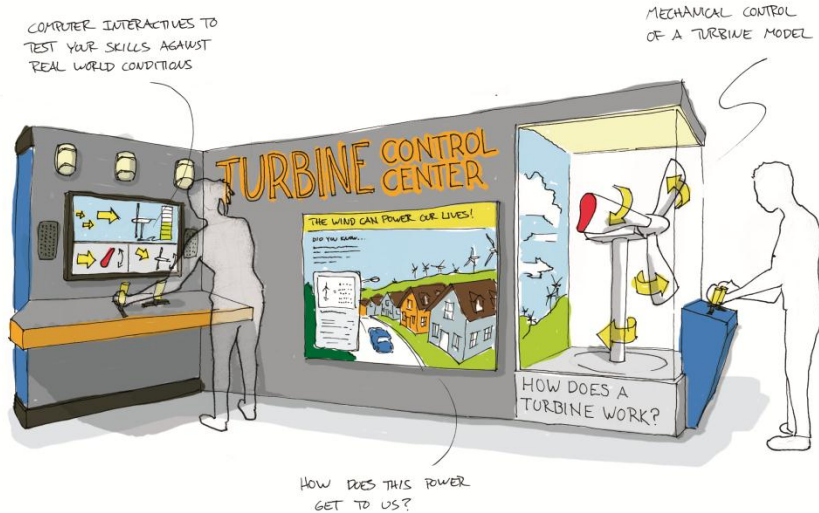
Big Idea: “Renewable energy technologies provide sustainable options that support our daily energy needs.”

Learning Objectives

- Understanding how energy from natural resources can be converted into usable energy
- Understanding issues and tradeoffs underlying all energy sources



Renewable Energy Exhibit Key Components



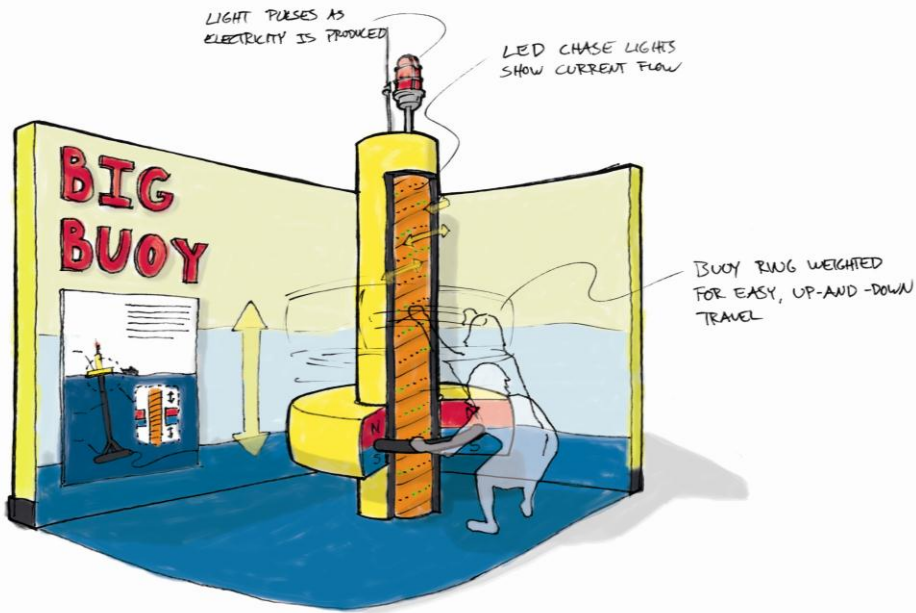
Wind energy area

Visitors will learn how this sustainable energy source has been captured in the past and how modern wind technology works.

Highlights:

- An interactive “turbine control center”
- A hands-on activity that allows visitors to experiment with different wind capture devices

Renewable Energy Exhibit Key Components



Wave energy area

Visitors will learn about the innovative designs that are being tested to capture this new source of energy and experience how one type of wave energy device works firsthand.

Highlights:

- An interactive wave buoy that allows visitors to “be the wave”
- A working “coil and magnet” that lets visitors see how wave generators convert motion into electricity

Renewable Energy Exhibit Key Components



Energy Center

Visitors learn about the tradeoffs involved with different types of energy generation and how these sources are integrated together into the electrical grid.

Highlight:

- An immersive “manage the grid” exhibit that engages visitors in making decisions on how to combine energy sources

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