

Energy Efficient Technologies: The first fuel for the developing world

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Tuesday, December 7
BCSE and DOC Joint side event



ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient World

Presentation Overview



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Creating an Energy-Efficient World

- A Few Words about the Alliance
- Best Practice for All Developing Countries:
Watergy
- Work in Southeast Europe and Asia
- A Look at the Potential for the Future

What is the Alliance to Save Energy?

Mission:

- To promote energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security.

Organization:

- Staffed by 80+ professionals
- 33 years of experience
- \$12 million annual budget
- Recognized as the premier energy efficiency organization in the world





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The Alliance Around the Globe

Branch Offices in:

- India
- South Africa
- Mexico
- Ukraine
- Armenia

Programs & Projects:

- Watergy
- Synenergy
- China Energy Efficient Windows Initiatives
- REEEP Compendium of Best RE & EE Practices
- Ukraine Municipal Heating Reform

Partners in International Projects



- U.S. and foreign government, multinationals, national labs, foundations, NGOs – including:
 - U.S. Agency for International Development,
 - U.S. Department of Energy,
 - U.S. Department of State,
 - UN Habitat,
 - Asia-Pacific Economic Cooperation,
 - Asia-Pacific Energy Research Centre,
 - Renewable Energy and Energy Efficiency Partnership,
 - International Finance Corporation,
 - World Bank, Inter-American Development Bank,
 - Coca-Cola and the Coca-Cola Foundation,
 - as well as municipalities, water utilities and foreign government agencies.



renewable
energy
& energy
efficiency
partnership



A Look at Success:



WATERGY makes the best use of two valuable, limited resources: water & energy

WHY IS THIS IMPORTANT?

- ✓ Every liter of water that passes through a system has a significant **energy cost**.
- ✓ Water sector efficiency leaves more funds for crucial and often underfunded **public services**.
- ✓ In most developing countries, **1/3 to 1/2 of water produced is lost**.

AND IT'S COST EFFECTIVE...

- ✓ **Rapid Payback:** generally from a few months to 3 years
- ✓ **Huge Savings:** at least 20% in energy costs; much higher possible
- ✓ Makes the most of existing **infrastructure**; reduces the need for new

RESULTS: 20.8 million kWh and \$5.3 million (100 cities)

Cost-Effective Interventions



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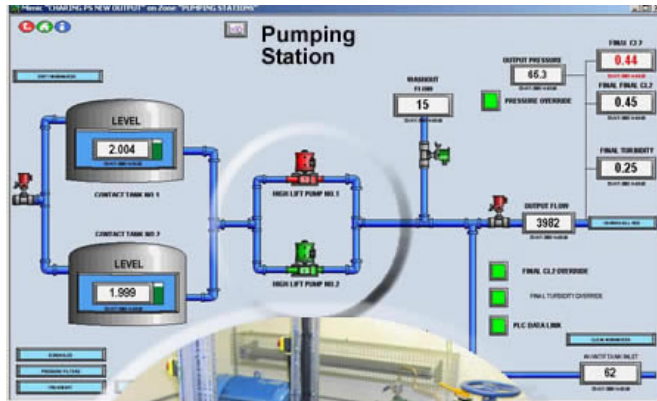
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💧 Pumps

💧 Leak Management

💧 Automated Controls

💧 Metering & Monitoring



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CASE STUDY:

VERACRUZ, Mexico

PROBLEM

- Energy costs for the Metropolitan System of Water and Sanitation at Veracruz (SAS) **ranked second in total operating costs**
- The system serving over 628,000 users experienced severe interruptions of service lasting up to **five hours at a time**
- Low level of service to the local population averaging in over **100 complaints per month**



VERACRUZ, cont.



Results:

- Optimization of electromechanical efficiency resulting in savings of **153,254 kWh/month**, with a payback period of 1.7 years
- Leak detection and water conservation resulting in savings of 35,500 kWh/month
- Energy intensity reduced resulting in **US\$394,000 in savings for the utility**

Synenergy



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The Alliance is working with International Resources Group (IRG) to increase energy efficiency in residential and public buildings in the ***Energy Community*** countries of Southeast Europe to reduce demand growth and enhance competitiveness.

Activities Include:

- National and Municipal Program Design
- Legal and Regulatory Support
- Public Awareness Outreach
- Financing and Business Development
- Residential and Municipal Investment Preparation
- Development of EE policies for in residential and public buildings

Cooperative Energy Efficiency Design for Sustainability (CEEDS)



Objective:

Promote “high-performance” energy efficiency policies in selected sectors in APEC economies

Sectors of Focus:

- Phase 1 – Appliance EE Standards & Labeling
- Phase 2 – Building Energy Codes and Labeling
- Phase 3 – Energy Efficiency in Transportation

Approach:

2 workshops, same participants

- 1st: Identify needs, barriers, opportunities
- 2nd: Report progress and recommend next steps

A World of Possibilities!



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Annual world-wide investment of \$170 billion in energy efficiency through 2020 could:

- **cut global growth in energy demand by ½!**
- **save \$900 billion a year** in avoided energy costs
- dramatically **reduce greenhouse gas emissions**

Source: *The McKinsey Global Institute*



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Thank you!

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