

ABOUT RECYCLED ENERGY DEVELOPMENT

Recycled Energy Development (RED) helps industrial facilities slash energy costs and greenhouse gas emissions by recycling wasted energy into clean electricity and useful steam.

America's *Inefficient System*

- Three units of fuel are used to generate each unit of U.S. power—33% efficiency
- The first U.S. power plant, built by Thomas Edison in the 1880s, achieved 50% efficiency by converting excess heat into steam to warm nearby buildings
- Energy recycling could generate 200,000 megawatts – enough to power 100 million homes and replace nearly 400 coal plants
- The U.S. Energy Information Administration estimates demand for electricity will grow 1.2% annually—5,000 megawatts
- Blackouts and power surges cost U.S. businesses \$150 billion annually

The Greener RED Alternative

- Convert industrial waste energy into clean electricity and useful steam
- Build efficient on-site Combined Heat and Power (CHP) plants for industrial facilities, avoiding the inefficiencies of long-distance, centralized power generation

RED's Benefits

- *Cost savings*: reductions of 20% in energy expense at facilities that recycle energy
- *Reliability*: one in a million chance of total electric loss at facilities with onsite power plants
- *Greenhouse gas emissions*: if available waste energy were captured nationally, immediate 20% reduction—thus meeting Kyoto Protocol targets
- *Increased efficiency*: from today's average of 33% to between 60% and 90%

A Proven System

- The first Edison plant recycled waste heat 125 years ago
- Denmark obtains 55% of its power from CHP systems and uses 40% as much energy per \$ of GDP as the U.S. By contrast, the U.S. utilization rate languishes in the single digits, among the lowest in the world.
- Germany, Japan and other industrialized countries use CHP at more than twice the rate as the U.S.

Key Facts

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