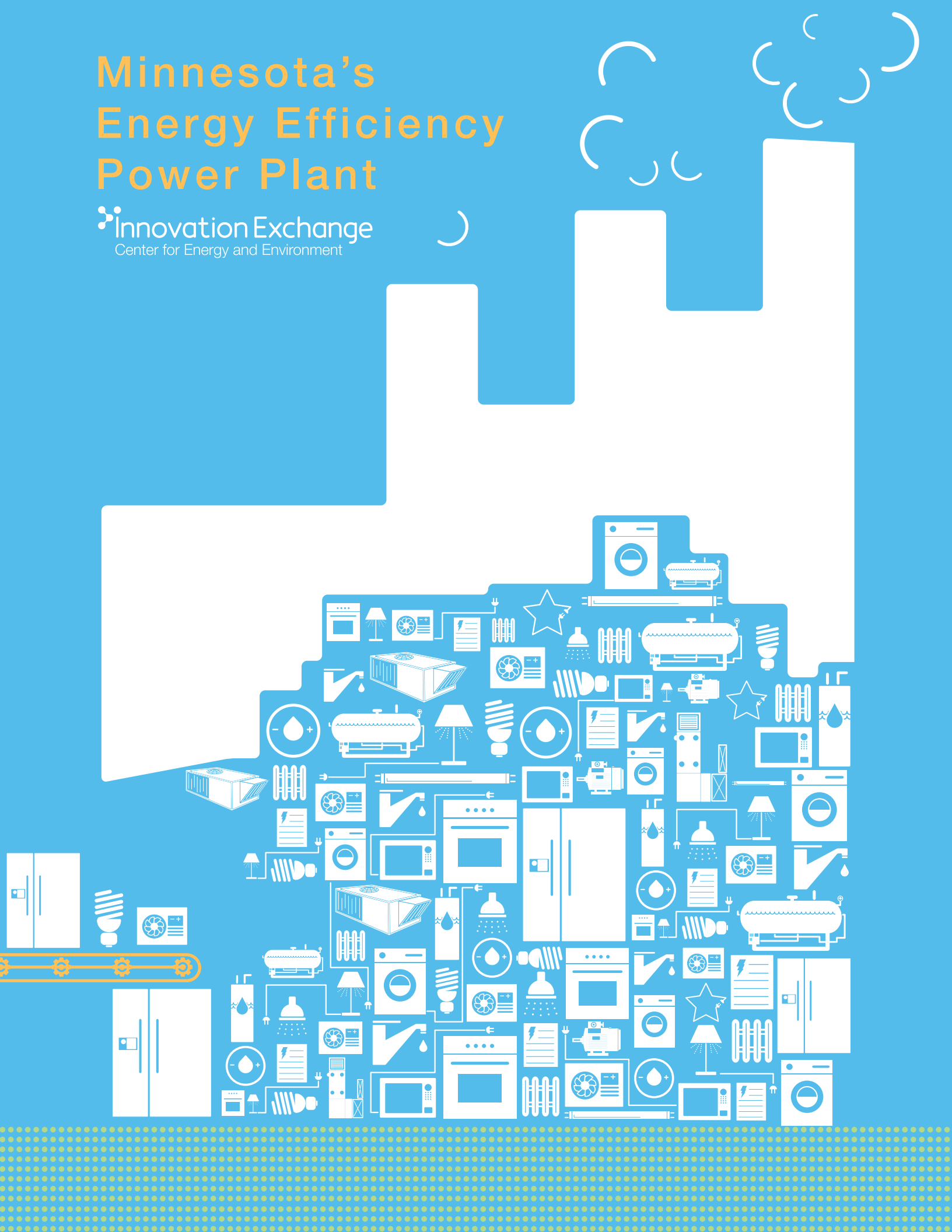


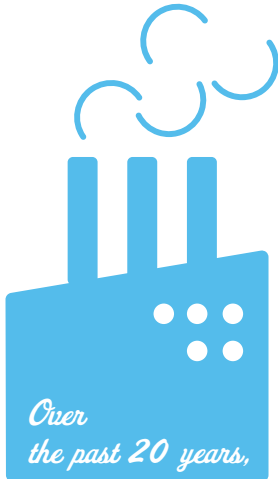
Minnesota's Energy Efficiency Power Plant

 Innovation Exchange
Center for Energy and Environment



Efficiency is an Energy Resource

Like wind and natural gas, Minnesota's "energy efficiency power plant" helps meet the state's energy needs.



MINNESOTA'S CONSERVATION PROGRAMS

saved approximately

68,000

gigawatt-hours of electricity.

THIS EQUALS

the annual production from

8

Prairie Island Nuclear Plants.

EFFICIENCY IS CLEAN

IN *18 years*,
EFFICIENCY PROGRAMS HAVE
AVOIDED **70 MILLION TONS**
OF CARBON DIOXIDE.
THE SHERCO COAL PLANT IN
BECKER, MN EMITS THIS MUCH
IN *5 years*.

Minnesota's utility energy efficiency programs are
RANKED #2 IN THE NATION BY ACEEE.

Energy efficiency projects are labor-intensive, so they create more direct jobs than other sources of energy. When businesses and individuals spend the money they saved on their energy bills, that spending creates even more jobs.



EFFICIENCY KEEPS RATES LOW

Efficiency avoids the need for new power plants, which all customers pay for through their electric rates.



The energy saved by Efficiency Projects

in **2010**

is equal to



rooftop solar on
125,000
homes

- or -



365
wind turbines.

EFFICIENCY IS CHEAP

THE COST TO
— *save* —
a kilowatt-hour of electricity is about
1.5 cents.

THE COST TO
— *buy* —
a kilowatt-hour of electricity averages
8 cents.

Assumptions: All numbers are savings at the generator and refer to utility Conservation Improvement Programs (CIP) only. Annual savings include the current program year plus accrual from previous years. Total savings is the sum of all years, assuming 15-year lifetime. Prairie Island Nuclear Plant annual production is 8,500 GWh. CIP and CO2 savings from MN DER, Energy and Carbon Dioxide Savings Report for 2009-2010 (2010 savings = 875 GWh). Energy cost information from EIA. One 5 kW solar system saves 7,000 kWh/yr at the generator (NREL). One 1-MW wind turbine produces 2.4 GWh per year (EIA). CO2 units are short (U.S.) tons. Statewide average CO2 emissions factor is 1.823 lb/MWh (MN PCA). Natural gas emissions factor is 116 lb/MMBtu (EPA). Sherco power plant emits 13 million tons of CO2 per year (Star Tribune 1/11/12).

 **Innovation Exchange**
Center for Energy and Environment
<http://www.mncee.org/Innovation-Exchange>