

Minnesota's Energy Efficiency Future

Saving Energy Is Smart Business
December 3, 2008

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Minnesota Energy and Climate Change Initiatives



- The Next Generation Energy Act of 2007 set aggressive energy reduction and climate change goals for the state
 - More energy conservation
 - More renewables
 - Carbon emissions reduction
- The Office of Energy Security administers programs intended to accomplish these goals and represents the public's interest in utility regulatory proceedings

Minnesota's Energy Policy Goals

(Minnesota Statutes section 216C.05)



It is the energy policy of the state of Minnesota that:

1. the per capita use of fossil fuel... be reduced by 15% by the year 2015 through increased reliance on *energy efficiency* and *renewable energy* alternatives; and
2. 25% of the total energy used in the state be derived from renewable energy resources by the year 2025.

Energy Conservation Policy Goal



...achieve annual energy savings equal to *1.5 percent of annual retail energy sales* of electricity and natural gas directly through:

- energy conservation improvement programs; and
- rate design

and indirectly through:

- energy codes and appliance standards;
- programs designed to transform the market or change consumer behavior;
- energy savings resulting from efficiency improvements to the utility infrastructure and system;
- and other efforts to promote energy efficiency and energy conservation.

2007 CIP Results



- 461,000,000 kWh
 - 74% was for C&I
 - ~50,000 homes
- 1,920,000,000 cubic feet of natural gas
 - 79% was for C&I
 - ~20,000 homes



Energy savings goals



2005 Minnesota Electric Consumption



66.567 Million MWh

1.5% Savings ~ 1 Million MWh Annually

1 Billion kWh

Energy savings goals



The energy saved by one year of 1.5% CIP equals 1/4 (20-25%) of the energy produced by Sherco, Monticello & Prairie Island in a typical year.

~ 600,000 tons of coal avoided each year

(units expressed in Quadrillion Btu)

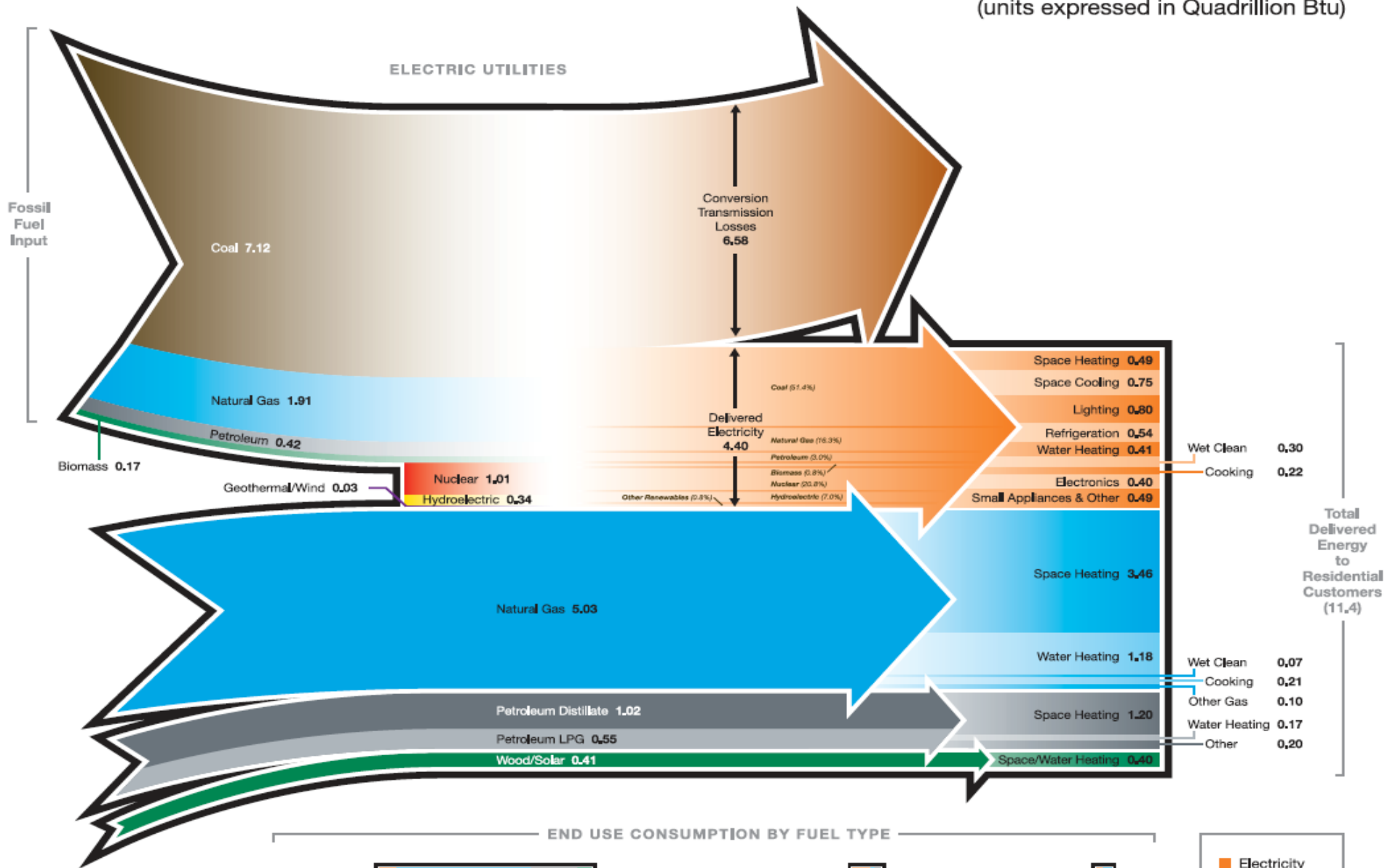
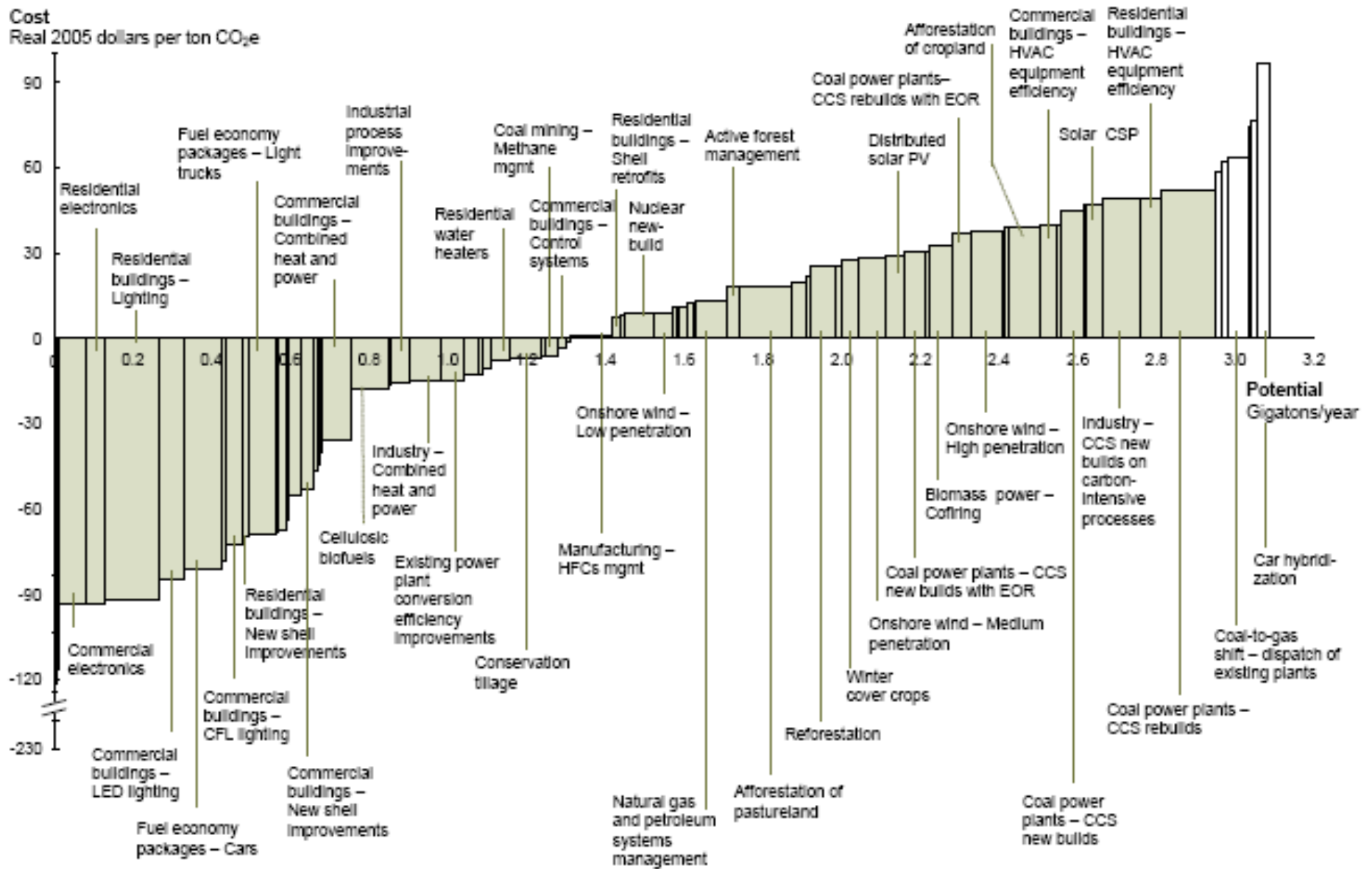


Exhibit B

U.S. MID-RANGE ABATEMENT CURVE – 2030



Source: McKinsey analysis

State Energy Efficiency Activities



- Conservation Improvement Program (CIP)
 - Electric and natural gas utility demand-side management programs
 - Electric infrastructure improvements
 - Waste heat recovery generation
 - 1.5% energy savings goal for *all utilities*
- 1,000 Energy Star commercial buildings
- 100 LEED or Green Globes Certified Buildings
- Public Buildings Enhanced Energy Efficiency Program (PBEEP)
- Applied R&D funding: \$3.1M per year

Effective C&I Programs



- Lighting
- Custom programs that address processes
- Motors
- Compressed Air
- Design assistance
- Energy Management Systems
- Recommissioning

Barriers to efficiency



- Businesses are unaware of the savings potential, and may be skeptical of the savings figures that are provided to them.
- Access to capital may prevent business investment in energy efficiency regardless of the availability of utility rebates for the improvements.
- Paybacks based solely on energy savings may limit the ability for business customers to implement more efficient equipment.



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Thank You!

Questions?

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