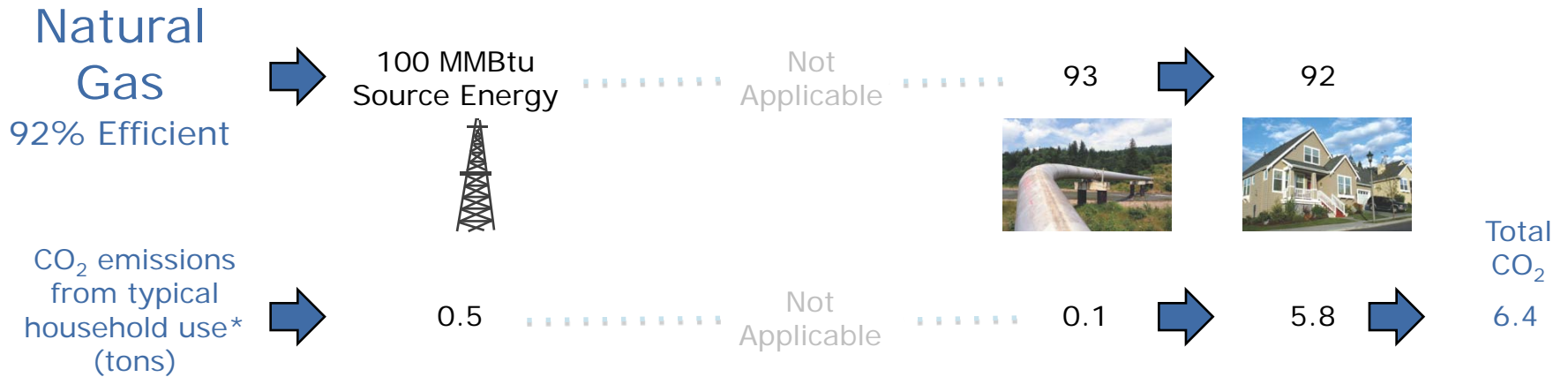
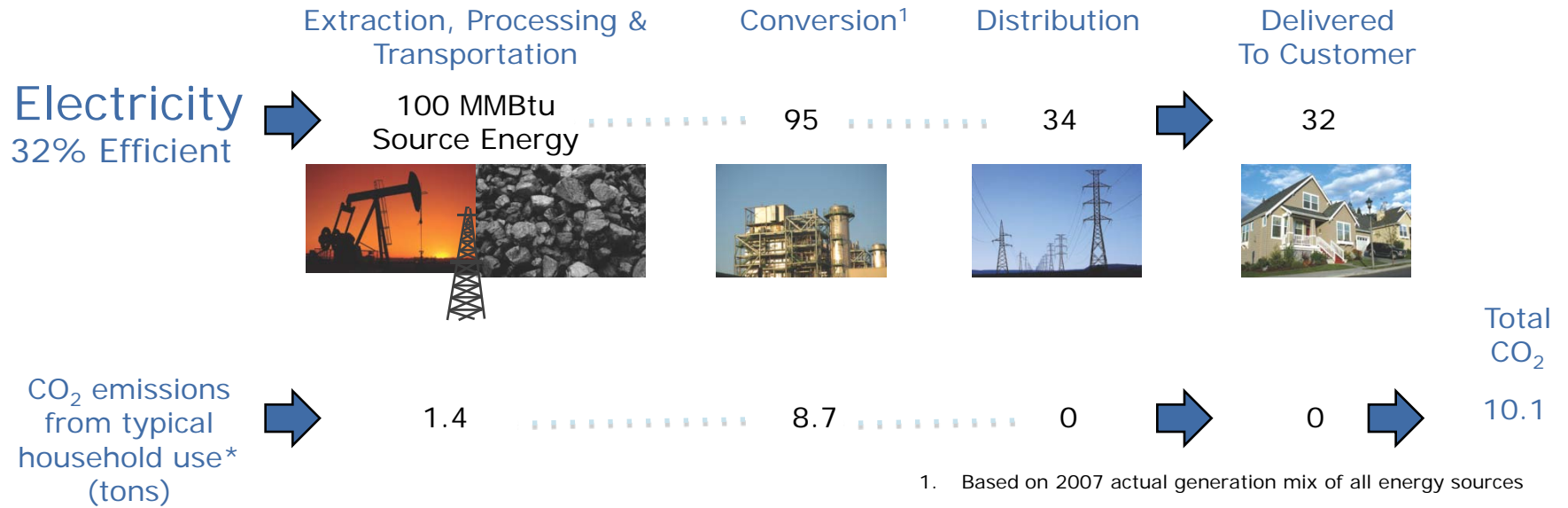


Three times more energy reaches the customer with natural gas.



* Energy consumed in space and water heating, clothes drying and cooking.

Direct Use of Natural Gas Results in 37% Less CO₂

Annual CO₂ emissions from typical home heating, water heating, cooking and clothes drying energy uses during the full-fuel-cycle

One Million Homes



Natural Gas

Total CO₂
6.4 Million Tons/Year

Electricity

Total CO₂
10.1 Million Tons/Year

NOTES:

1. Fuels used in electricity generation based on 2007 actual generation mix of fossil fuels, nuclear and renewable energy
2. 1.1 million new homes were built in 2008

Full-Fuel-Cycle Impacts from Energy Consumption in a Typical Home

Electric Home



10.1 tons CO₂

Total Source Energy Consumption: 167 MMBtu/yr

Total Site Energy Consumption: 53 MMBtu/yr

Total Annual Energy Cost: \$1,777

Natural Gas Home



6.4 tons CO₂

Total Source Energy Consumption: 121 MMBtu/yr

Total Site Energy Consumption: 107 MMBtu/yr

Total Annual Energy Cost: \$1,240

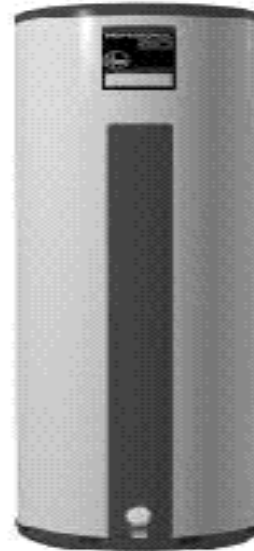
Based on a 2,000 square foot home in an average climate, using national average energy prices.
Analysis includes the following only: space heating, water heating, cooking, and clothes drying.
Home meets Model Energy Code standards.

Residential Water Heater Efficiency

Federal Minimum Efficiency Ratings are Misleading. Current efficiency ratings suggest electric water heating is more efficient and environmentally friendly (by 53%), but electric water heaters produce double the carbon dioxide (CO₂) emissions of natural gas.

Electric Storage Water Heaters Are Less Expensive to Install. Market advantage due to lower cost will increase total CO₂ emissions. A 10% market shift to electric resistance water heaters will increase CO₂ emissions by 1.3 million tons per year.

Electric Resistance Storage Water Heater



Natural Gas Storage Water Heater



Federal Minimum Efficiency Rating¹:

.90 EF

.59 EF

Full-Fuel-Cycle Energy Consumption (MMBtu/yr)

52.0

27.6

CO₂* Emissions (tons/yr):

3.1

1.5

Energy Cost/yr²:

\$554

\$282

¹ Minimum efficiencies for storage water heaters with equivalent first hour ratings.

² Energy cost is based on 2009 DOE representative average unit costs for energy where electric rate is \$11.40 cents/kWh; gas rate is \$11.12/Mmbtu

*Includes greenhouse gas impact from unburned methane

Residential Energy Efficiency Ratings Space Heating

DOE site-specific energy ratings are misleading. While DOE rates an electric appliance with a more efficient energy rating than a similar gas appliance, in reality that electric appliance consumes more source energy, pollutes more and often costs the consumer more to operate.

Electric Heat Pump



Electric Resistance Furnace



Natural Gas Furnace



Federal Minimum Efficiency Rating:

7.7 HSPF

99 AFUE

80 AFUE

Full-Fuel-Cycle Energy Consumption (MMBtu/yr):

98.8

192.3

85.1

CO₂* Emissions (tons/unit/yr):

6.0

11.6

4.5

Energy Cost/year¹

\$1,053

\$2,050

\$872

¹ Energy cost is based on 2009 DOE representative average unit costs for energy where electric rate is \$11.40 cents/kWh; gas rate is \$11.12/MMBtu

*Includes greenhouse gas impact from unburned methane

Comparison of Residential Space Heating Appliances



Electric Heat Pump



Electric Resistance Furnace



Natural Gas Furnace

DOE/NAECA Efficiency	7.7 HSPF	9.0 HSPF	99 AFUE	80 AFUE	94 AFUE
Source Energy Use/Yr*	99 MMBtu	88 MMBtu	192 MMBtu	85 MMBtu	68 MMBtu
CO2 Emissions/Yr*	6.0 Tons	5.3 Tons	11.6 Tons	4.5 Tons	3.3 Tons
Equipment Cost**	\$2,720	\$3,975	\$2,800	\$2,855	\$3,895
Est. Annual Shipments	1,500,000	360,000	800,000	1,290,000	990,000

* Excludes A/C operations

** Package price includes cost for air conditioning equipment

Residential Energy Efficiency Ratings Clothes Drying

DOE site-specific energy ratings are misleading. While DOE rates an electric appliance with a more efficient energy rating than a similar gas appliance, in reality that electric appliance consumes more source energy, pollutes more and costs the consumer more to operate.

Electric



Natural Gas



Federal Minimum Efficiency Rating:	3.01 EF	2.67 EF
Full-Fuel-Cycle Energy Consumption (MMBtu/yr):	10.3	4.4
CO₂* Emissions (tons/unit/yr):	0.6	0.2
Energy Cost/year¹	\$110	\$45

¹ Energy Cost is based on 2009 DOE representative average unit costs for energy where electric rate is \$11.40 cents/kWh; gas rate is \$11.12/MMBtu
EF = Energy Factor

* Includes greenhouse gas impact from unburned methane

Residential Energy Efficiency Ratings Cooking Equipment

DOE site-specific energy ratings are misleading. While DOE rates an electric appliance with a more efficient energy rating than a similar gas appliance, in reality that electric appliance consumes more source energy, pollutes more and costs the consumer more to operate.

Electric



Natural Gas



Federal Minimum Efficiency Rating:

10.9 EF

5.8 EF

Full-Fuel-Cycle Energy Consumption (MMBtu/yr):

5.7

3.8

CO₂* Emissions (tons/unit/yr):

0.3

0.2

Energy Cost/year¹

\$60

\$39

¹ Energy Cost is based on 2009 DOE representative average unit costs for energy where electric rate is 11.40 cents/kWh; gas rate is \$11.12/MMBtu
 EF = Energy Factor

* Includes greenhouse gas impact from unburned methane