

Alternative Energy Forum

Tucson, AZ, September 14, 2007

Presented by
Dudley Sondeno
Southwest Gas Corporation



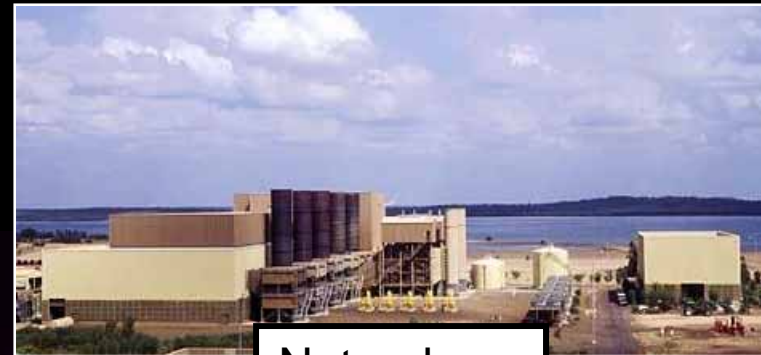
What is the best way to
deliver a unit of energy to
the end user?



Fossil Fueled Power Plants



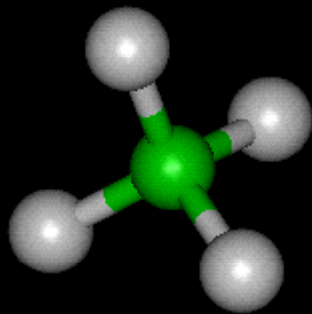
Coal



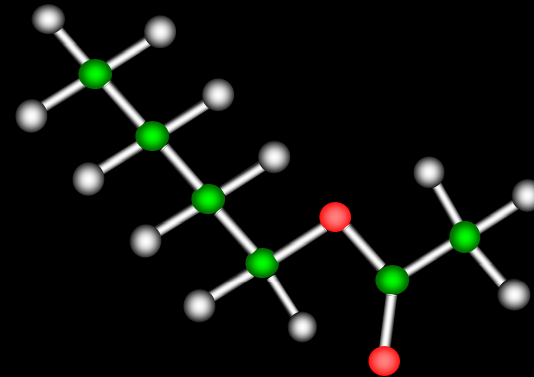
Natural gas



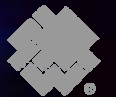
Natural Gas (Methane)



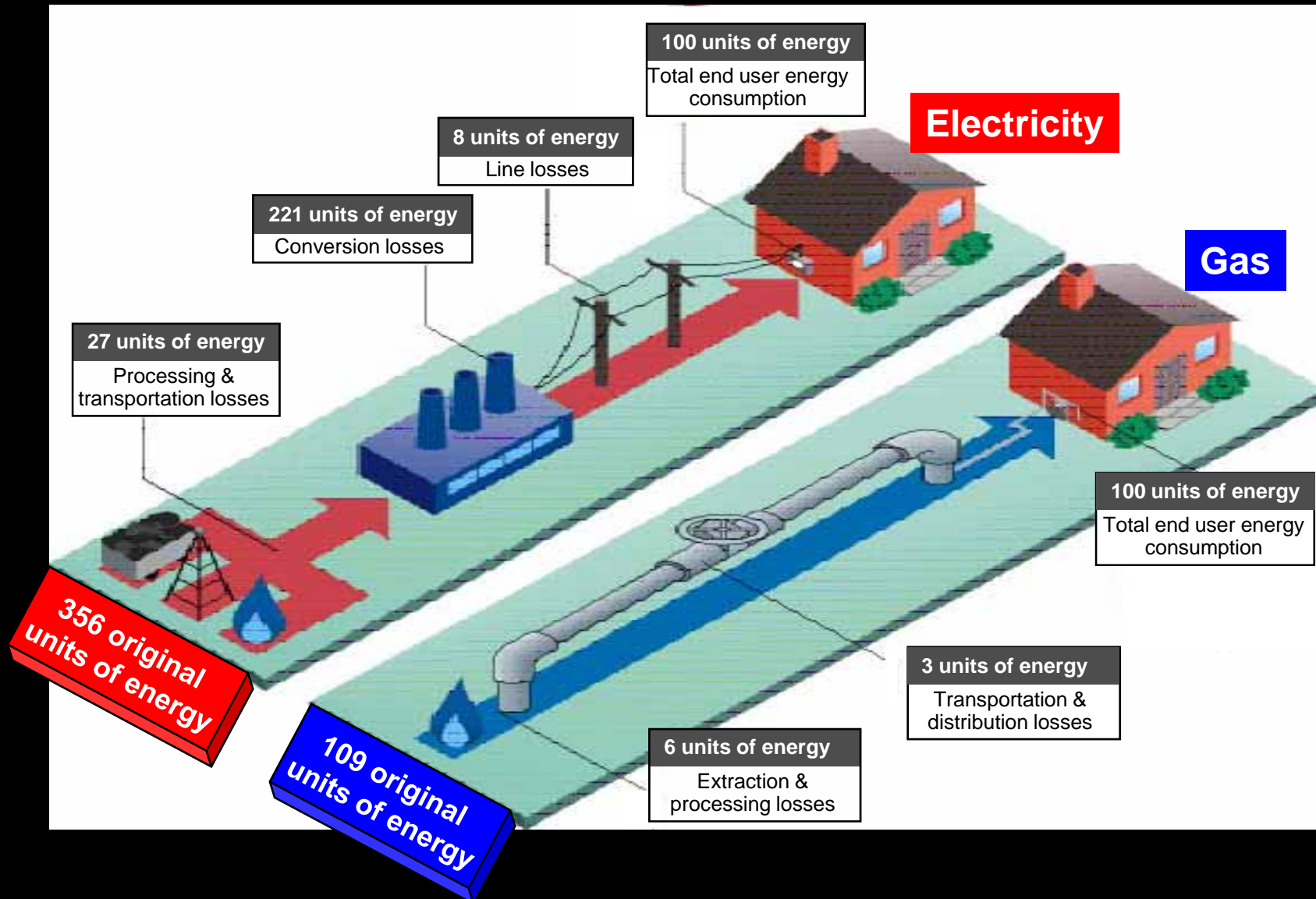
Coal



Is there a better way to
deliver a unit of energy to
the end user?



Energy Delivery System



“Distributed Energy Resources (DER) is the solution to many of the nation's most pressing energy and electric power problems”

U.S. Department of Energy

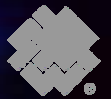


DER does not defer
peak electric load;
it eliminates it.



CHP/Cogeneration

Produces power / Captures waste heat



Gas Heat Pumps

Provides heating, cooling & captures waste heat



Is there a better way to
deliver a unit of energy to
the end user?



Renewables

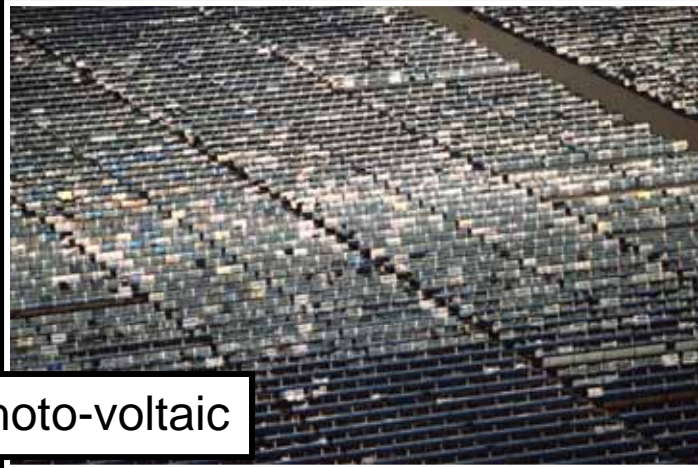
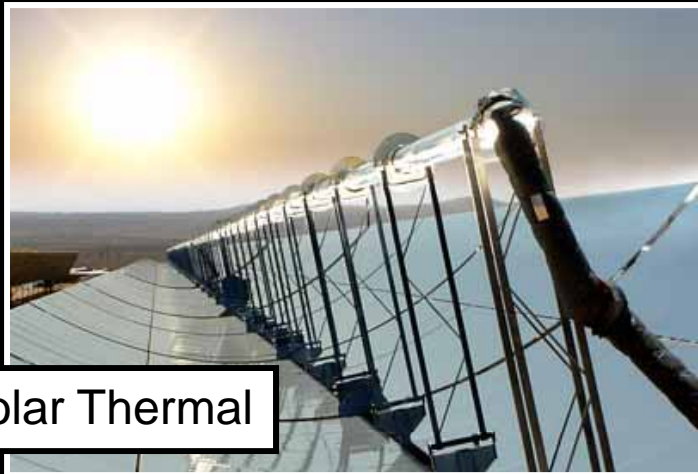


Photo-voltaic



Wind



Solar Thermal



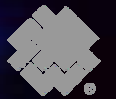
Geothermal



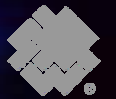
Is there a better way to
deliver a unit of energy to
the end user?



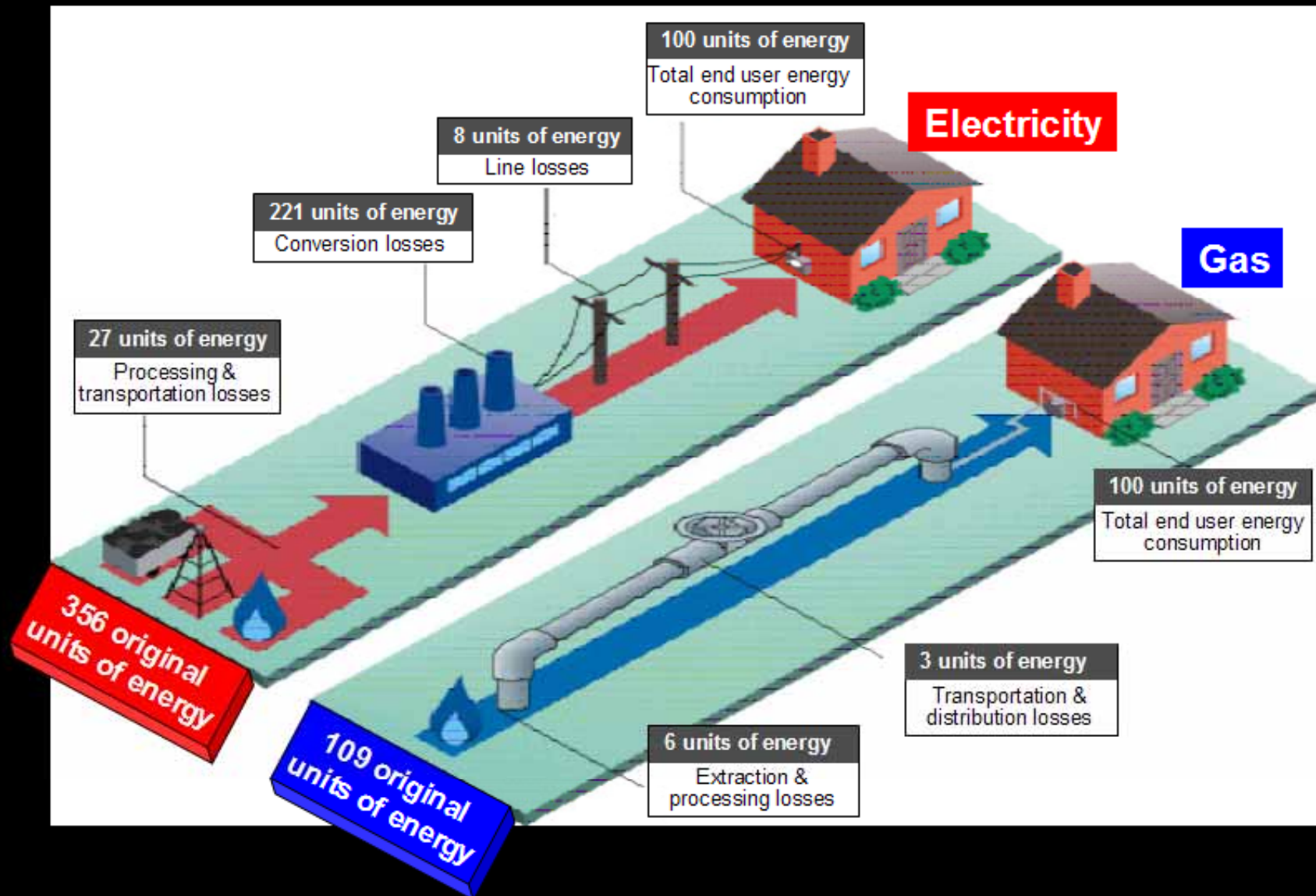
It is NOT producing that
unit of energy at all.



Nil-therms
Negatherms Negawatts
Nil-watts
None-watts None-therms

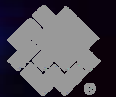


Energy Delivery System



“Reducing energy demand
through efficiency and
consumer choice: the often
overlooked energy option.”

*Jim Wells, Director
Natural Resources & Environment
U.S. Government Accountability Office*



What is Southwest Gas Doing to Help Increase Energy Efficiency in Arizona?

- ACC approved Southwest's request to increase spending on Demand Side Management (DSM).
- Southwest submitted a DSM Program Plan for review and approval by the ACC including:
 - Energy Star certification
 - Education, rebates and incentives on energy efficient products and equipment
 - Low income weatherization and education
- DSM Plan would yield estimated lifetime benefits of:
 - 2.2 billion kilowatt-hours saved
 - 63.8 million therms saved
 - 2.7 billion gallons of water saved
 - 2.1 billion pounds of CO₂ not produced



Energy Efficiency Success Criteria

- Make energy efficiency a part of Arizona's renewable/alternative energy public policy.
- Partner with the utilities to promote and implement energy efficiency programs and projects.
- Consider energy efficiency from the source to its end use.
- Use natural gas in the best way possible.



Using natural gas for what it does best
builds the bridge to a more efficient,
environmentally friendly era of energy use.

