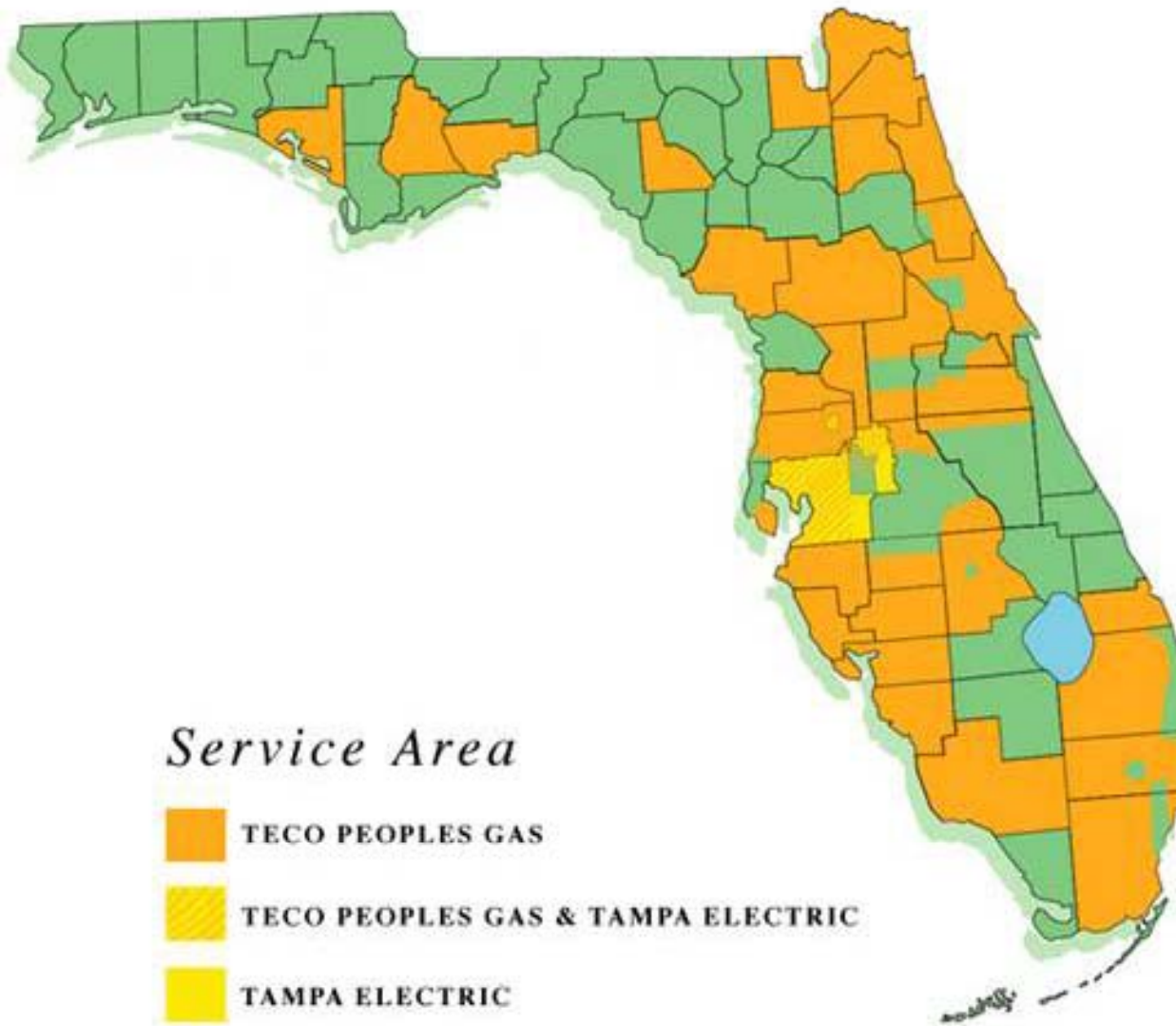

Natural Gas as a DSM Strategy in Electric Utilities' Energy Efficiency Programs




Presentation to the Staff Subcommittee on Gas
2010 NARUC Winter Committee Meetings
Washington, D.C.
February 14, 2010

TECO Energy

- Peoples Gas System
 - ❑ Over 335,000 customers
 - ❑ Service in over 100 franchised areas
 - ❑ Provide gas to 5,300 MW of power generation behind our gates
- Tampa Electric
 - ❑ Provider of electric service in 4 counties, predominantly Hillsborough
 - ❑ 667,000 customers



Service Area

-  TECO PEOPLES GAS
-  TECO PEOPLES GAS & TAMPA ELECTRIC
-  TAMPA ELECTRIC

The Role of Natural Gas in Florida

- Approximately half of Florida's electric power generation comes from natural gas
- Use of compressed natural gas (CNG) as a clean motor fuel
- Currently limited in the residential and commercial sector as compared to electric

Effects on Florida's Energy Future

- Increased use of natural gas can reduce electric generation needs
 - 571 MW of electric generating capacity can be avoided
- Natural Gas reduces carbon dioxide emissions
 - 2.1 billion pounds of carbon per year can be eliminated

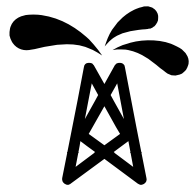
Benefits of Direct Use of Natural Gas

- A 2008 Black and Veatch Engineering study for the American Gas Foundation analyzed the national impact of increased direct use of natural gas for residential and commercial end uses
- By 2030, a 50% shift of switchable electric loads to gas could produce the following results in the U.S.:
 - 60 to 200 million tons of CO₂ reduction
 - Annual carbon emissions from 10 - 33 million passenger vehicles
 - Annual CO₂ emissions from 5 - 16 million homes
 - Energy savings of 1.25 to 2.00 quadrillion BTUs
 - Enough natural gas to serve the state of Florida for two years

Generating & Delivering Electricity

100%

Original Energy



Oil Well

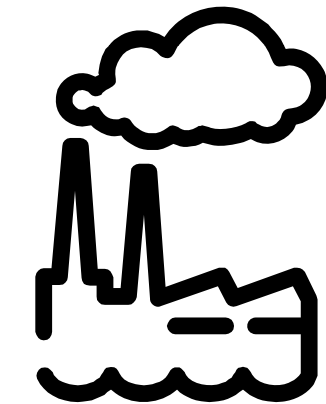


Gas Well



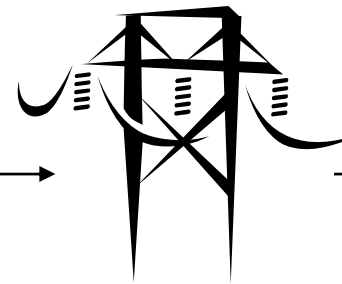
Coal Mine

70%
Of Energy Lost



Electric Generation

3%
Of Energy Lost



Transmission
& Distribution

ONLY
27%
Of the Original
Energy is Delivered



Customer

Source - AGA, 1990

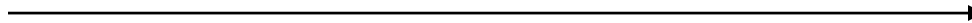
Delivering Natural Gas

100%
Original Energy



Gas Well

Less than 10% energy loss during transmission



90%

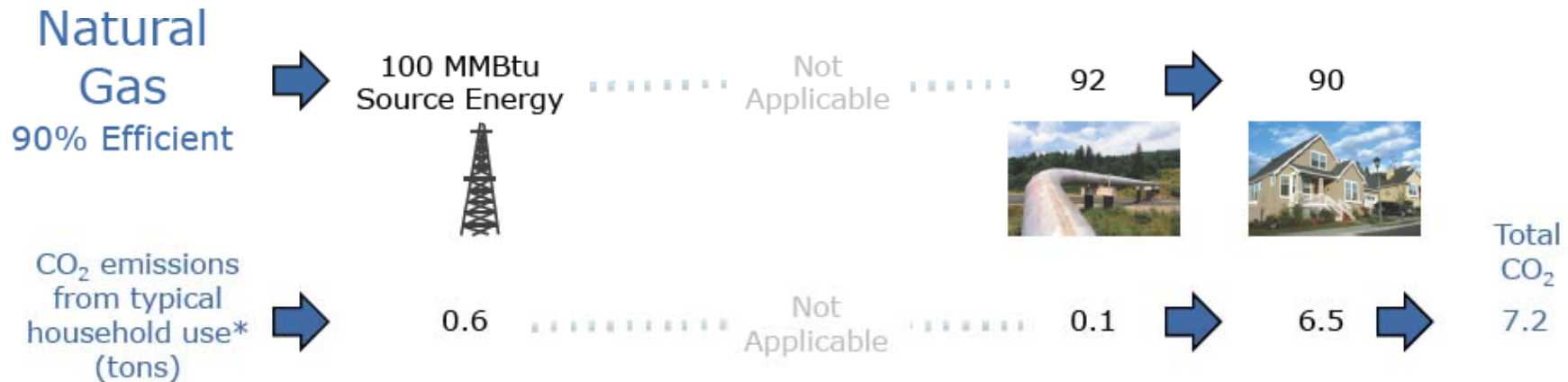
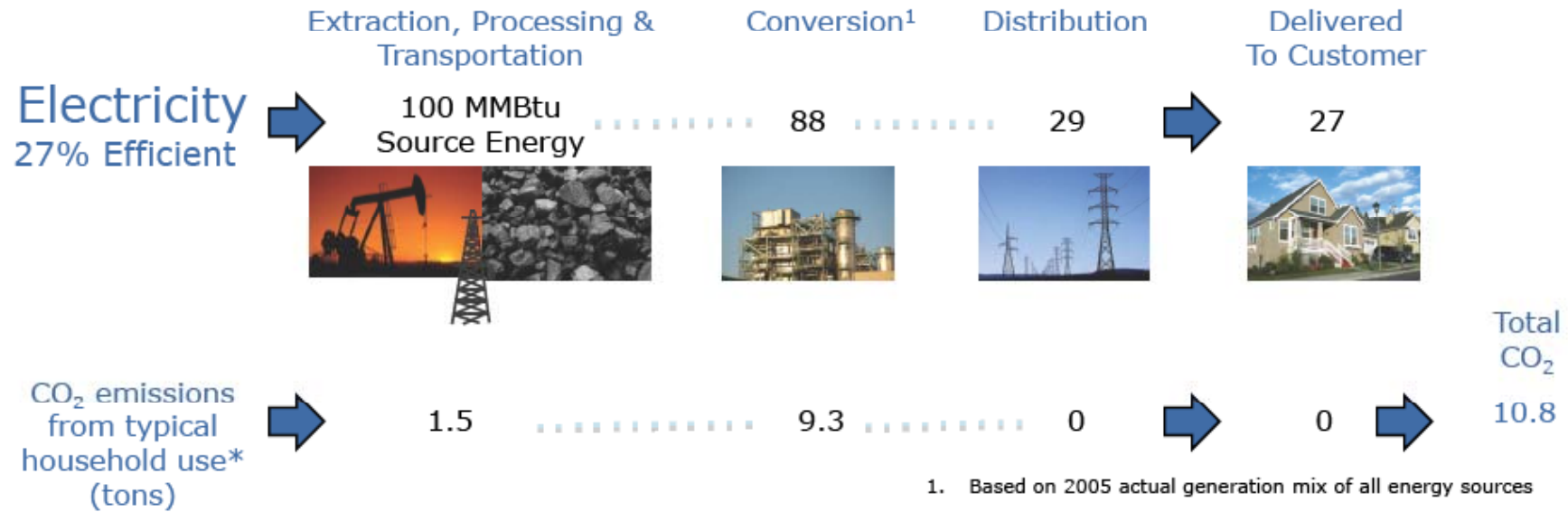
Of the Original Energy
is Delivered



Customer

Source - AGA, 1990

Three times more energy reaches the customer with natural gas.



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

Florida Energy Efficiency and Conservation Act

- The Florida Legislature enacted the Florida Energy Efficiency and Conservation Act (FEECA) in 1980 and is contained in the Florida Statutes
- FEECA places emphasis on:
 - ❑ Reducing the growth rates of weather-sensitive peak demand,
 - ❑ Reducing and controlling growth rates of electric consumption, and
 - ❑ Reducing consumption of scarce resources such as petroleum fuels

FEECA cont.

- Utilities subject to FEECA
 - Any public retail provider of electricity whose annual sales are more than 2,000 gigawatt hours or natural gas providers who annual sales are greater than 100 million therms

FEECA Achievements

- Florida Investor-Owned Utilities:
 - have performed over 300,000 residential energy audits.
 - offer over 71 conservation programs for residential and commercial customers
 - have recovered \$2.4 billion in conservation program expenditures over the last 10 years
- Since 1980, utility sponsored DSM programs have reduced statewide summer peak demand by an estimated 5,805 megawatts and winter peak demand by 6,245 megawatts

FEECA Achievements cont.

- Annual energy savings were estimated to be 7,250 gigawatt-hours in 2008
- The demand savings from these programs has deferred the need for over 30 typical 150 megawatt combustion turbine units, or enough capacity to serve approximately 1.6 million households

FEECA Amendments

- In 2008, the Florida Legislature made several changes to the FEECA statute including:
 - Directing the Commission to evaluate the potential of demand-side renewable energy systems
 - Allowing the Commission to financially reward or penalize utilities for exceeding or failing to meet goals
 - Directing the Commission to review goals no less often than every 5 years

Tampa Electric Energy Conservation Programs

Energy Efficiency Programs

- Energy Audit
- Residential Building Improvement
 - Ceiling Insulation
 - Wall Insulation
 - Window Replacement
 - Window Film
- Energy Planner
- Ductwork
- Residential New Construction
- Heating & Cooling
- Low Income Weatherization

Peoples Energy Conservation Programs

- Peoples Gas has 7 energy conservation programs available to residential and commercial customers, primarily through rebates
- In the last 5 years, Peoples has paid approximately \$43 million in rebates and installed about 200,000 appliances

Residential Energy Conservation Programs

Conservation Program	Appliance	Allowance
Home Builder Program	Tank Water Heater	\$350
	Tankless Water Heater	\$450
	Furnace	\$350
	Range	\$100
	Dryer	\$100
Appliance Retention Program	Same as Home Builder Program	Same as Home Builder Program
Appliance Replacement Program	Tank Water Heater	\$525
	Tankless Water Heater	\$525
	Furnace	\$625
	Range	\$100
	Dryer	\$100
	Space Heating	\$65
Oil Heating Replacement Program	Gas Heating Systems	Up to \$330

Commercial Energy Conservation Programs

Conservation Program	Appliance	Allowance
Electric to Gas Replacement Program	Cooking / Water Heating	\$40/kW (up to \$4,000)
Gas Space Conditioning Program	Desiccant	\$150/ton (up to 100 tons \$15,000)
Small Package Cogeneration Program	Cogeneration Equipment	\$150/ton (up to 150 tons / \$22,500)

Conservation Demonstration and Development (CDD) Program

- Allows Florida's 7 investor-owned LDCs to jointly support research, development, demonstration of projects that promote energy efficiency and development of new conservation programs
- The CDD has a 5 year cap of \$2 million and a project cap of \$400 thousand
- Approved by the FPSC 2/2010

Energy Conservation Advertising

- Joint LDC Statewide Advertising Initiative
 - Get Gas Florida – www.getgasfl.com

For more information, contact:

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