

# Natural Gas Distribution

## House Utilities and Telecommunications Committee

*January 30, 2013*

**Mick Urban**

Government Relations

ONEOK, Inc.

# Terminology

Term	Definition
Ccf	Hundred cubic feet
Mcf	Thousand cubic feet
MMcf	Million cubic feet
Bcf	Billion cubic feet
Tcf	Trillion cubic feet
Gas main	Primary lines that deliver gas throughout a city or town
Service line	A smaller line that runs to the home or business
Town Border Station	Custody of gas passes to the LDC. Reduces pressure.
LDC	Local distribution company
Transport customer	Customer that secures their own gas supply

# United States Summary

- There are 1,619 gas companies in the United States.
- 20.1 Trillion cubic feet
- More than 1.5 million miles of mains and distribution lines.
- 622,000 direct jobs
- 2.2 million indirect direct jobs



# Kansas Summary

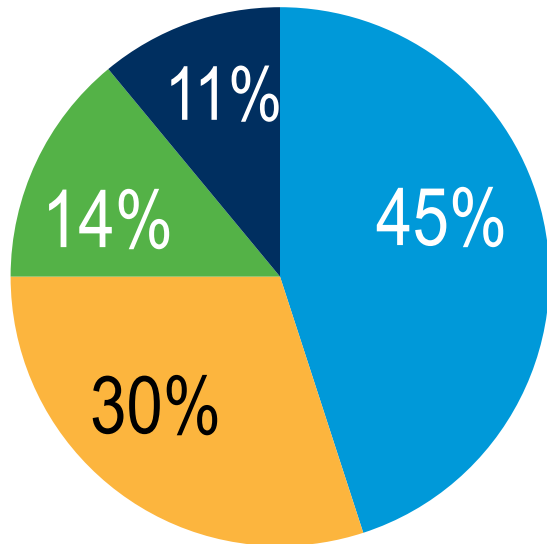
- There are 79 gas companies in Kansas.
- 242.7 billion cubic feet
- 24,110 miles of mains and distribution lines.
- 6,000 direct jobs
- 14,000 indirect direct jobs



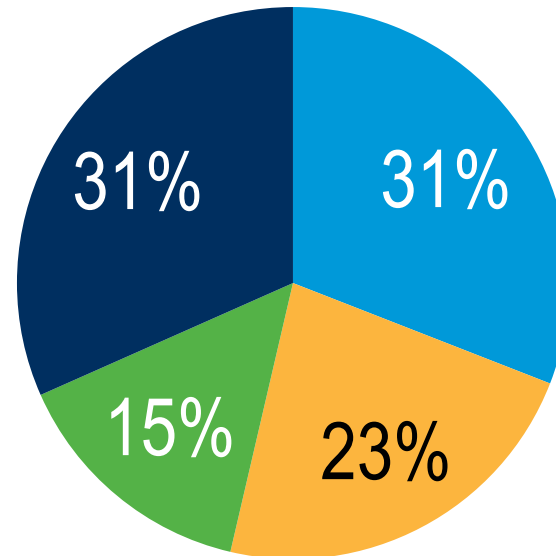
# Consumption

*Kansas compared to the United States*

**KS consumption 242.7 Bcf**



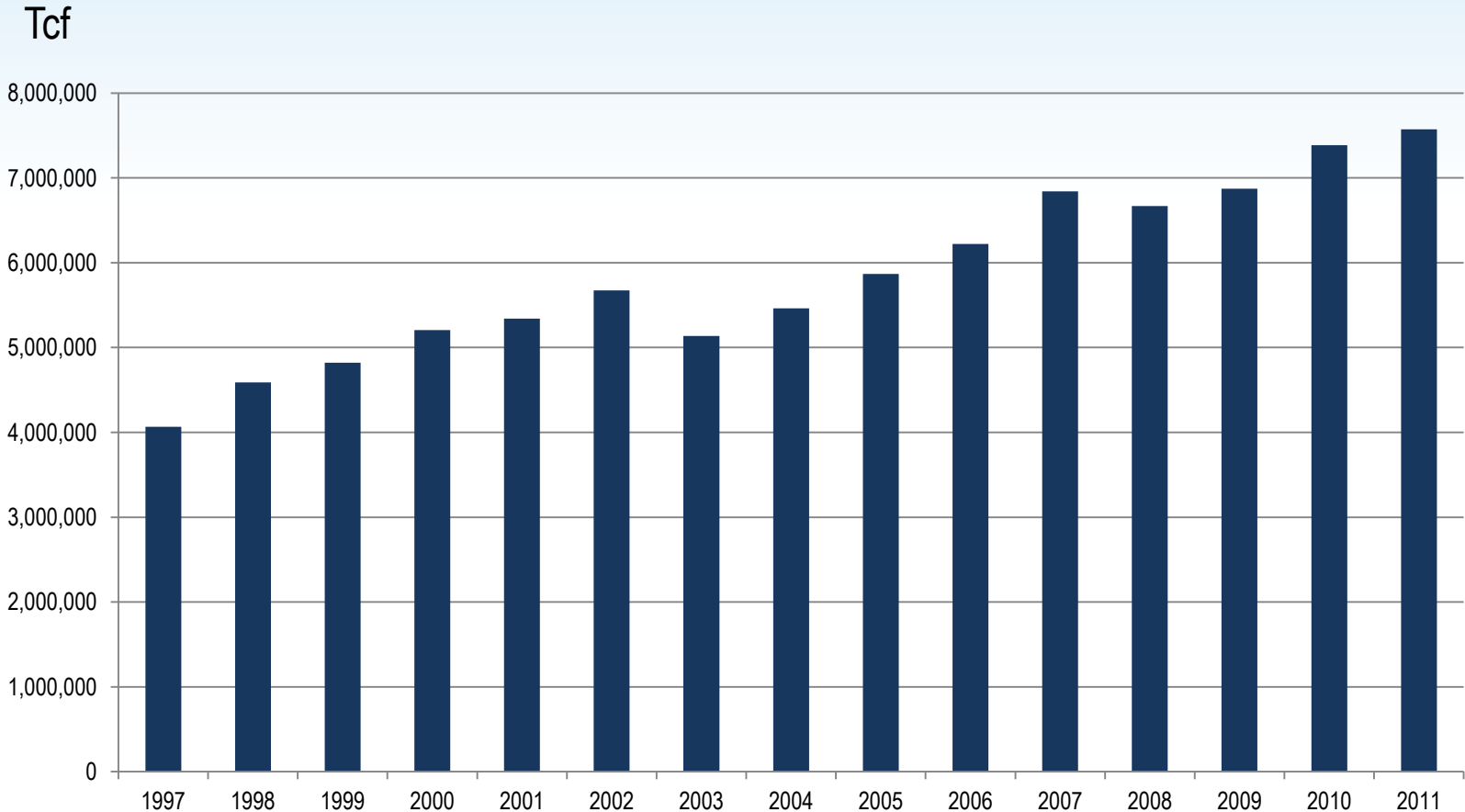
**U.S. Consumption 20.1 Tcf**



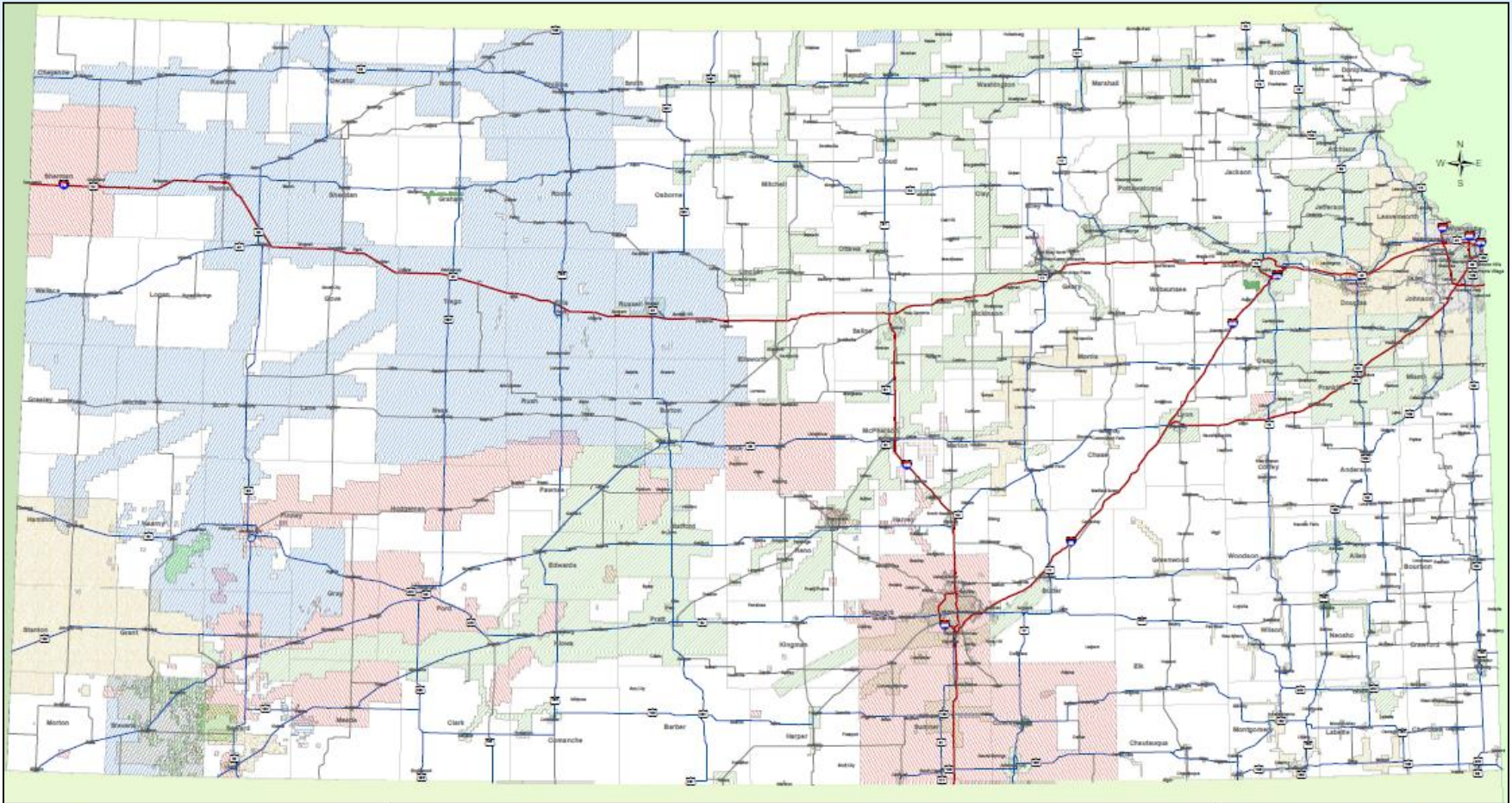
- Industrial
- Residential
- Commercial
- Power Gen

Source: American Gas Assoc. 2010

# U.S. Natural Gas Deliveries to Electric Power Consumers



# Certificated Areas in Kansas



**STEVENS COUNTY SWGIs**

- SWGI SPIKES NORTH, INC.
- SWGI STEVENS E.C., INC.
- SWGI STEVENS HSW, INC.
- SWGI STEVENS LOWER SOUTH EAST, INC.
- SWGI STEVENS N.E., INC.
- SWGI STEVENS NORTH, INC.
- SWGI STEVENS SOUTH EAST, INC.

Cities and Towns

**Gas Company**

- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> AMILLO NATURAL GAS, INC.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFA07A; border: 1px solid black; margin-right: 5px;"></span> BLACK HILLS ENERGY</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF4500; border: 1px solid black; margin-right: 5px;"></span> AMERICAN ENERGIES GAS SERVICE, LLC.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF8C00; border: 1px solid black; margin-right: 5px;"></span> ANADARKO GATHERING COMPANY</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF8C00; border: 1px solid black; margin-right: 5px;"></span> ATMOS ENERGY</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> KANSAS GAS SERVICE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> KEARNY COUNTY GAS IRRIGATORS ASSN.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682B4; border: 1px solid black; margin-right: 5px;"></span> MIAMI PIPELINE COMPANY, INC.</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> MIDWEST ENERGY, INC.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> MUNICIPAL OR OTHER SYSTEM</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> PLAINS PRODUCERS ASSOCIATIONS, INC.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> SWGI SEWARD WEST CENTRAL, INC.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> SWGIs in STEVENS COUNTY</li> </ul> |
|--|---|--|

**CERTIFICATED AREAS OF  
NATURAL GAS PUBLIC UTILITIES  
IN KANSAS**



# City Gates

*Also called “town border”*

- Utilities receive gas at many different locations that serve three purposes.
  - Reduce the pressure.
  - Add odorant.
  - Measure the flow rate of the gas to determine the amount being received by the utility.





# The Distribution System

- Natural gas moves into distribution lines or "mains" that range from 2 inches to 20 inches in diameter.
- Within the distribution system, there are sections that operate at different pressures, with regulators controlling the pressure.
- Generally, the closer natural gas gets to a customer, the smaller the pipe diameter is and the lower the pressure is.
- Flow rates and pressures are monitored continuously.
- The utility's primary objective is safe, reliable service.



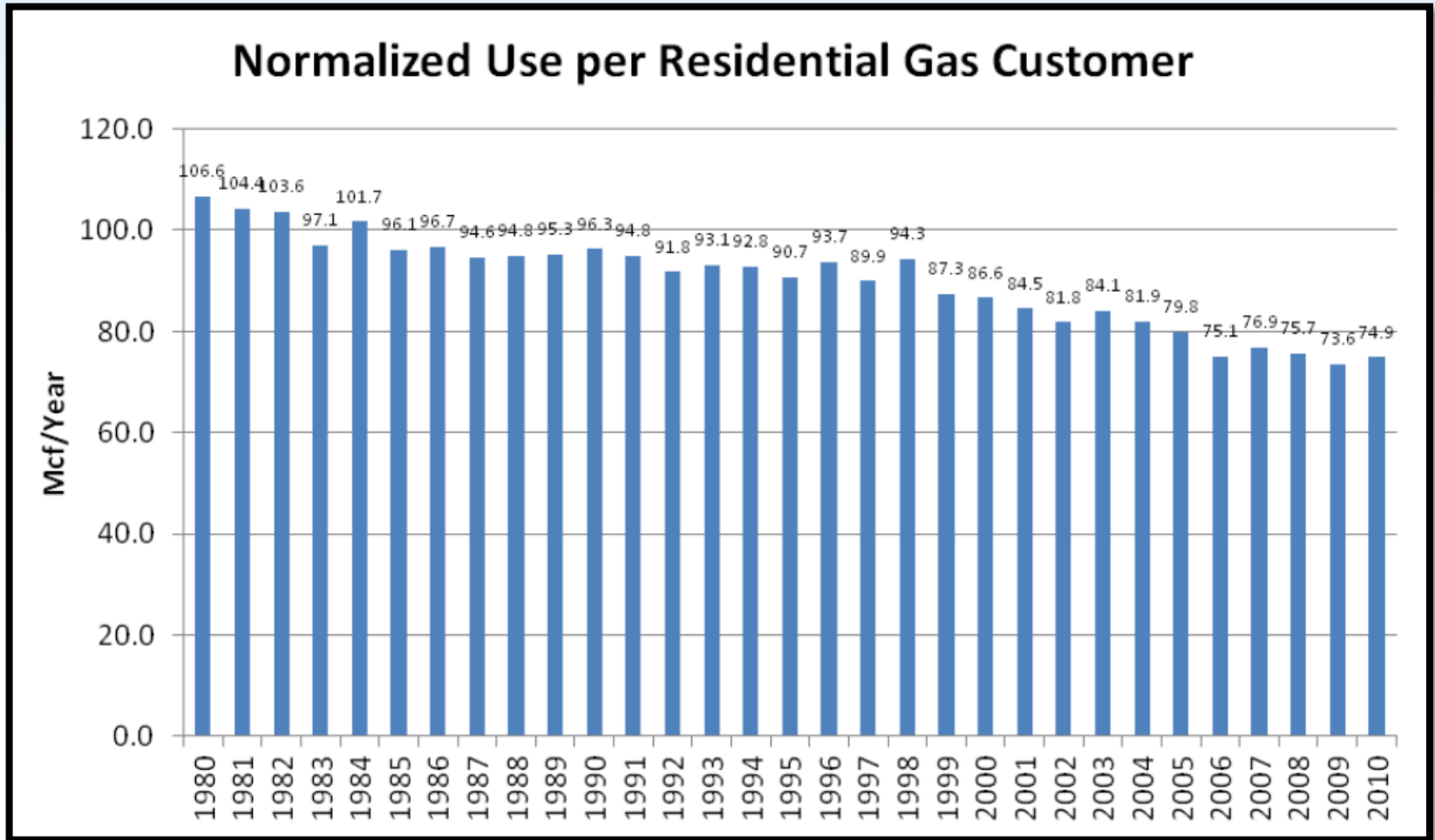
# Moving Natural Gas Into the Home

- Service lines run from the main into a home or business.
- Small-diameter plastic line an inch or less in diameter.
- When the gas passes through a customer's gas meter, it becomes the property of the customer.
- Gas meters can be located at the street or residence.
- At the customer's meter another regulator reduces pressure to about a ¼ pound.



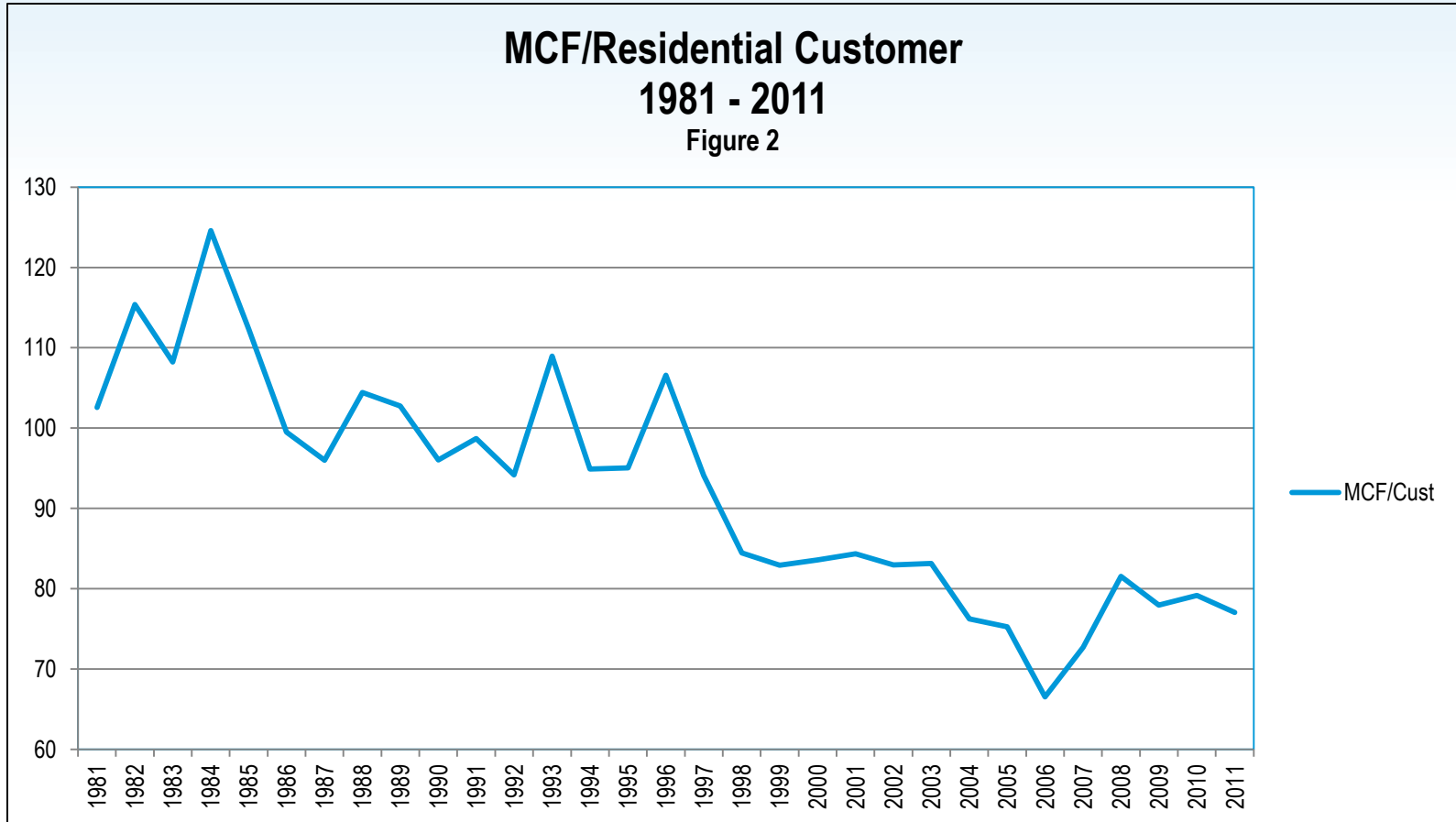
# Residential Usage History

U.S. Data



# Residential Usage History

*Kansas Gas Service*





Thank you.

**Mick Urban**

Manager, Government Relations

ONEOK & ONEOK Partners

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