

Natural Gas Distribution

House Energy and Environment Committee

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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

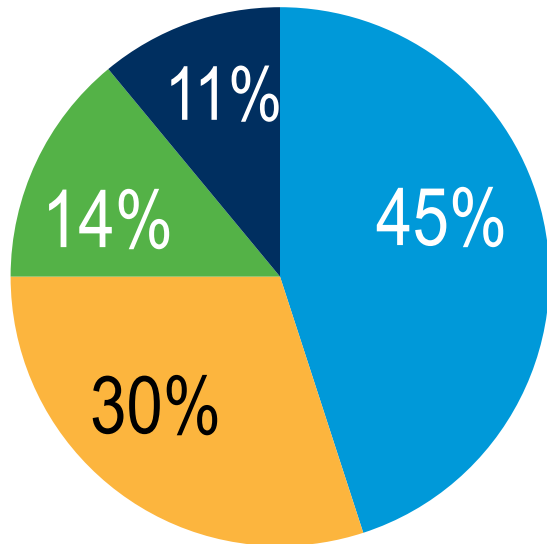
- There are 79 gas companies in Kansas.
- 242.7 billion cubic feet
- 24,110 miles of mains and distribution lines.
- 6,000 direct jobs
- 14,000 indirect direct jobs



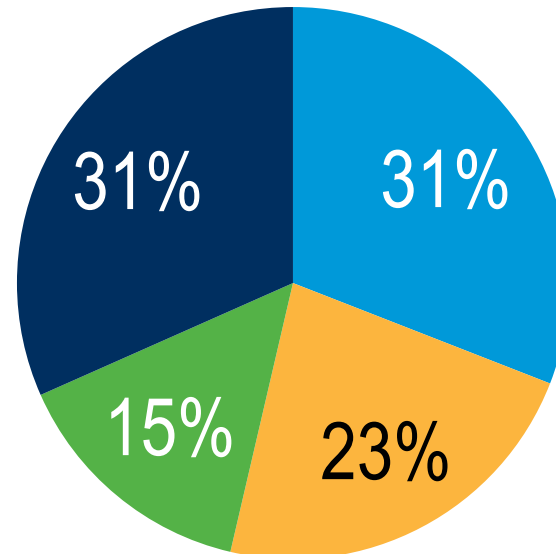
Consumption

Kansas compared to the United States

KS consumption 242.7 Bcf



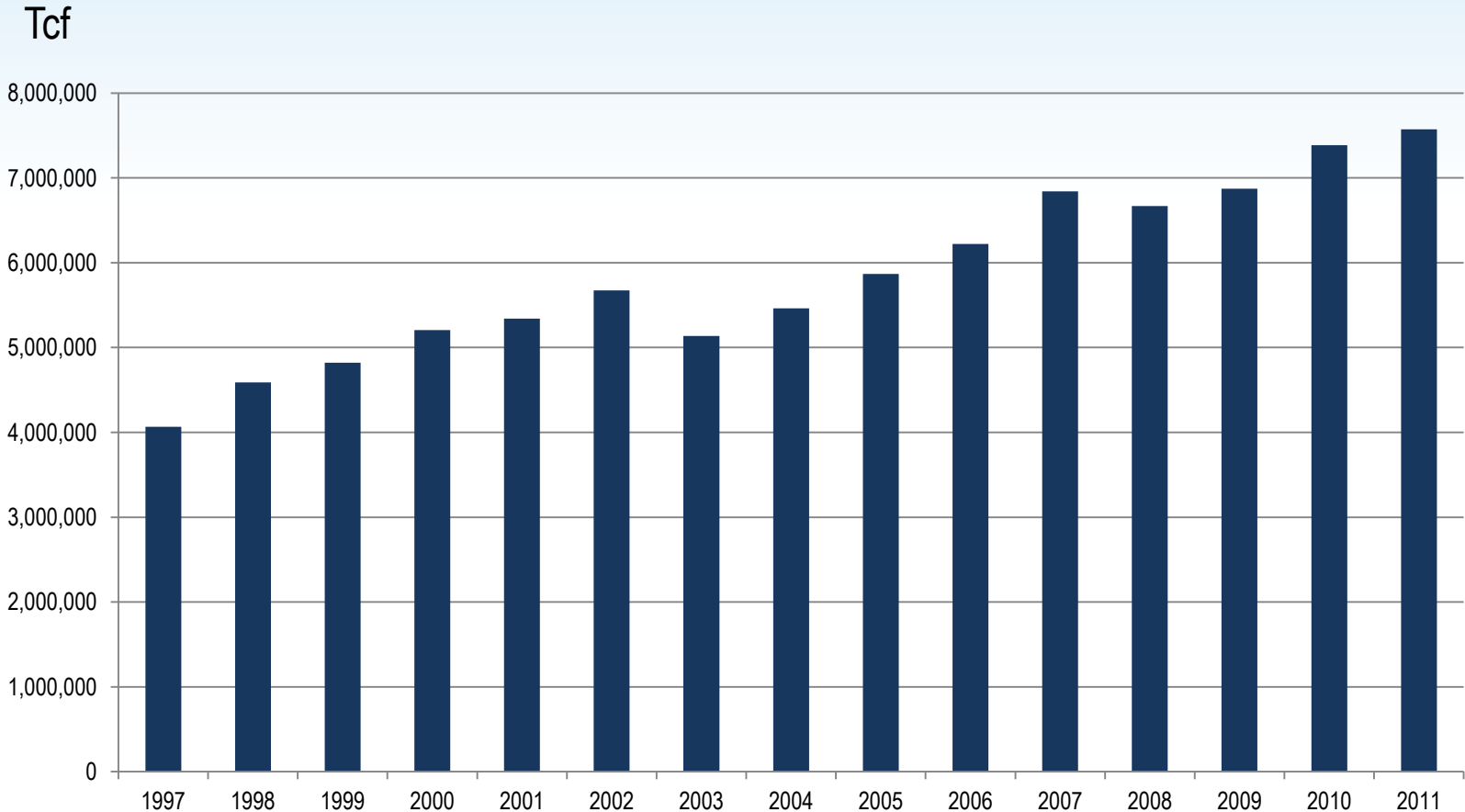
U.S. Consumption 20.1 Tcf



- Industrial
- Residential
- Commercial
- Power Gen

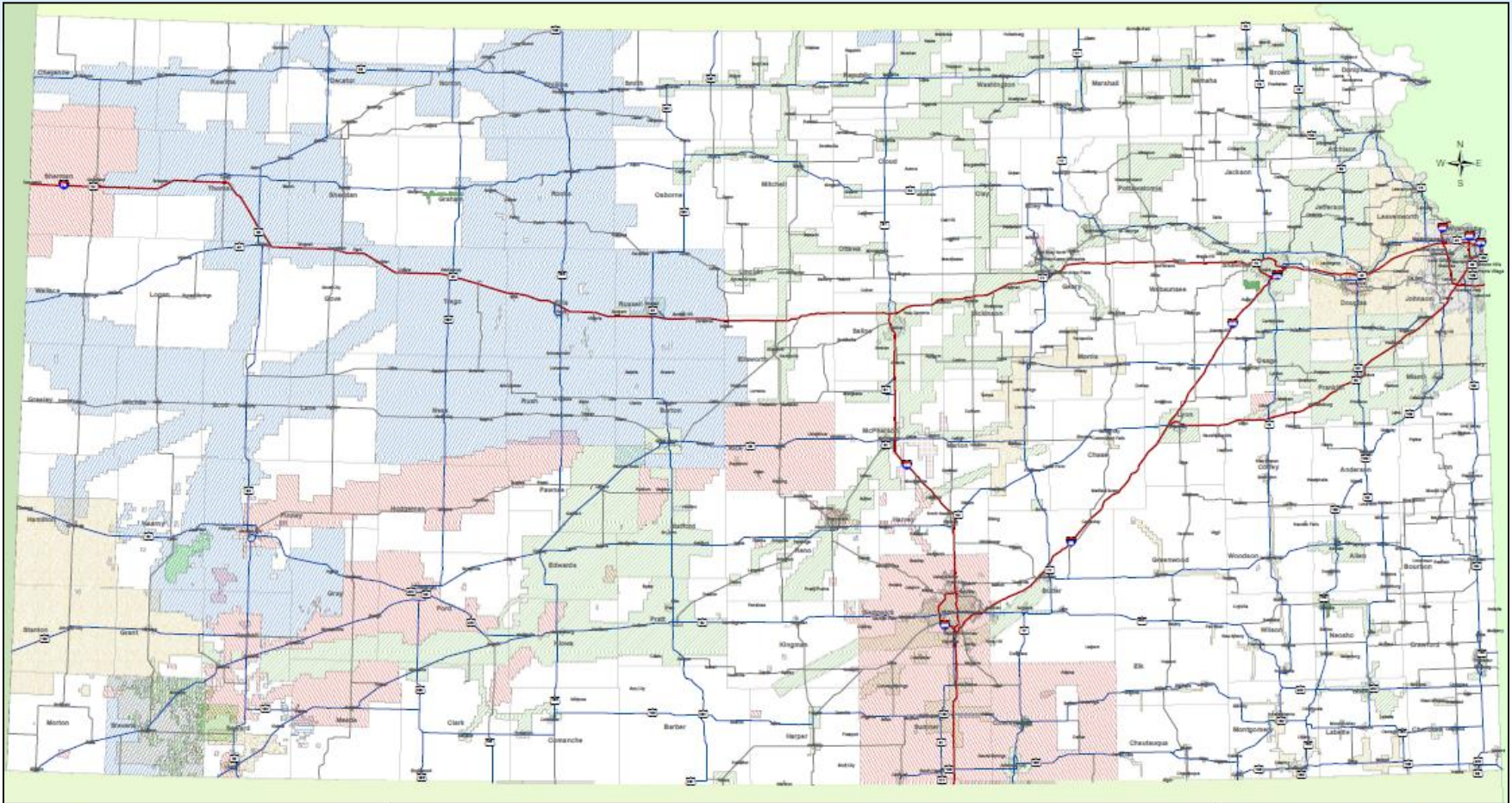
Source: American Gas Assoc. 2010

U.S. Natural Gas Deliveries to Electric Power Consumers



Source: American Gas Assoc. 2010

Certificated Areas in Kansas



- STEVENS COUNTY SWKs**
- SWKI SPIKES NORTH, INC.
 - SWKI STEVENS E.C., INC.
 - SWKI STEVENS HSW, INC.
 - SWKI STEVENS LOWER SOUTH EAST, INC.
 - SWKI STEVENS N.E., INC.
 - SWKI STEVENS NORTH, INC.
 - SWKI STEVENS SOUTH EAST, INC.

● Cities and Towns

Gas Company

- AMERICAN ENERGIES GAS SERVICE, LLC.
- ANADARKO GATHERING COMPANY
- ATMOS ENERGY

- ARMILLO NATURAL GAS, INC.
- BLACK HILLS ENERGY
- KANSAS GAS SERVICE
- KEARNY COUNTY GAS IRRIGATORS ASSN.
- MIAMI PIPELINE COMPANY, INC.

- MIDWEST ENERGY, INC.
- MUNICIPAL OR OTHER SYSTEM
- PLAINS PRODUCERS ASSOCIATIONS, INC.
- SWKI SEWARD WEST CENTRAL, INC.
- SWKs in STEVENS COUNTY

**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.



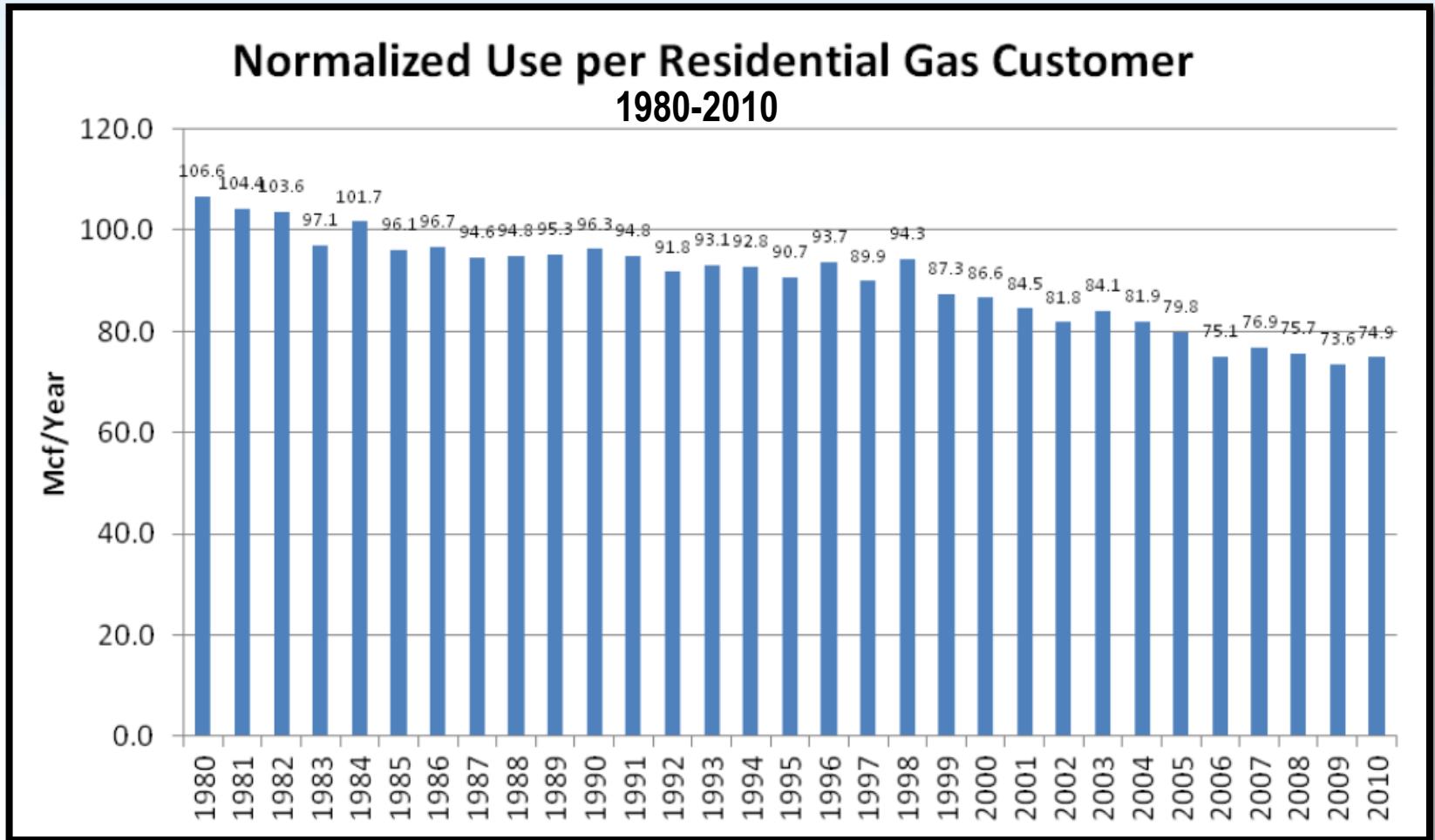
Moving Natural Gas Into the Home

- 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 $\frac{1}{4}$ pound.



Residential Usage History

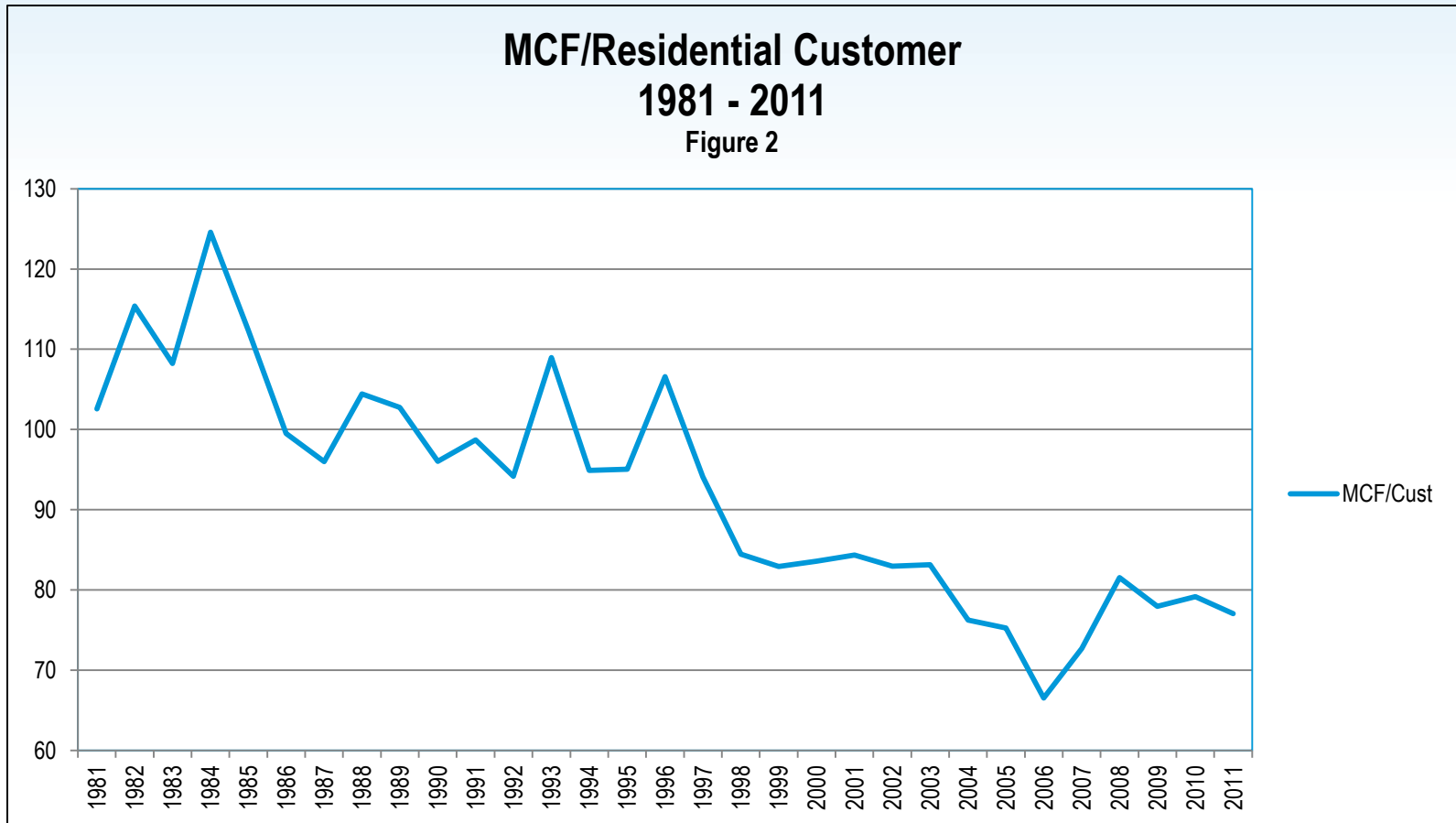
U.S. Data



Source: EIA

Residential Usage History

Kansas Gas Service



Source: Kansas Gas Service



Thank you.

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