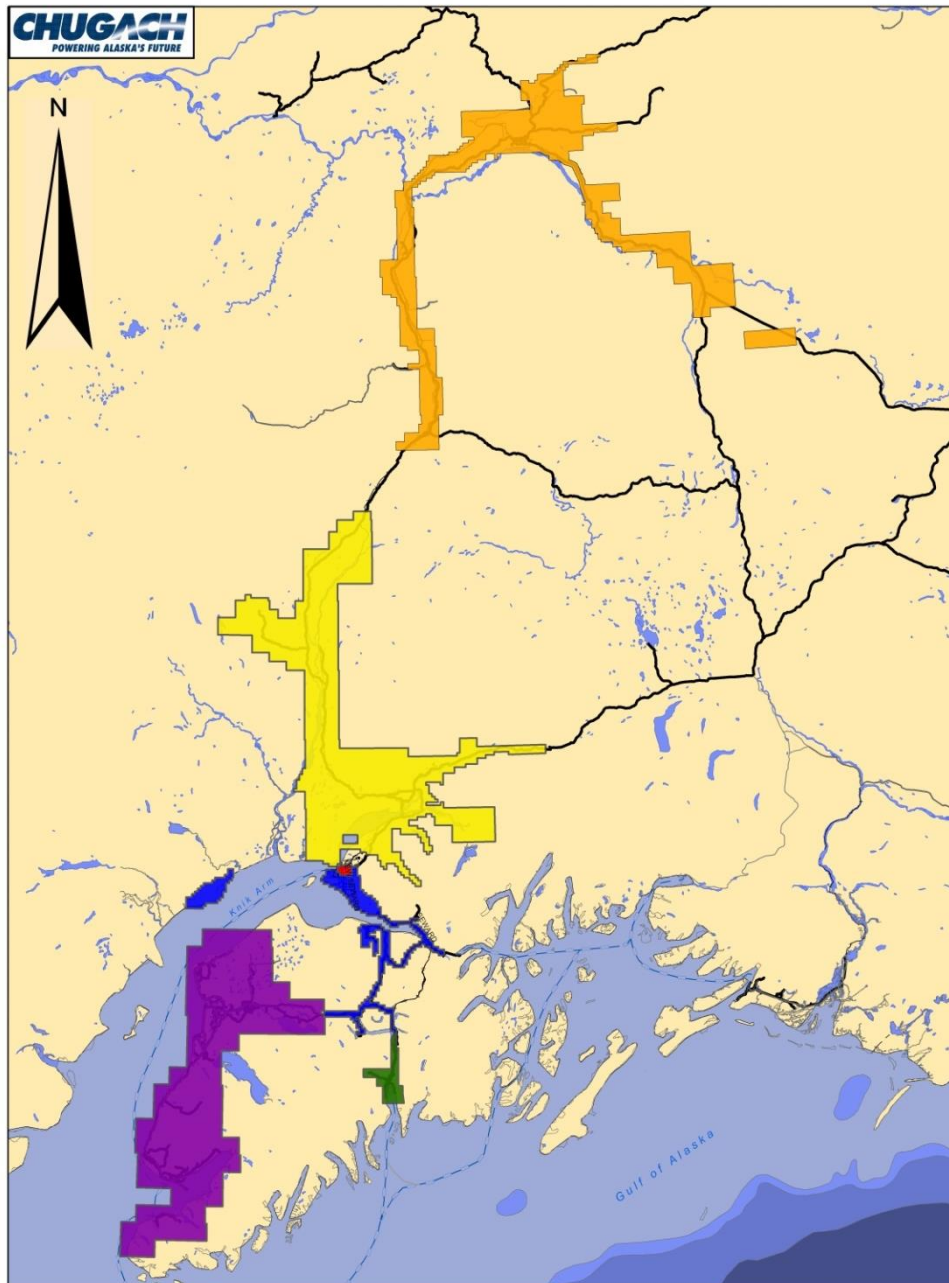


Chugach Electric Association's use of natural gas for electric generation

House
Resources
Committee
March 2, 2016

The Railbelt, electrically

- 6 electric utilities
- Each owns generation
- Natural gas is the primary generation fuel for 5 utilities, and partially for the 6th
- 100% of the gas comes from the Cook Inlet basin



Chugach's changing gas situation

■ 1960s – 1980s

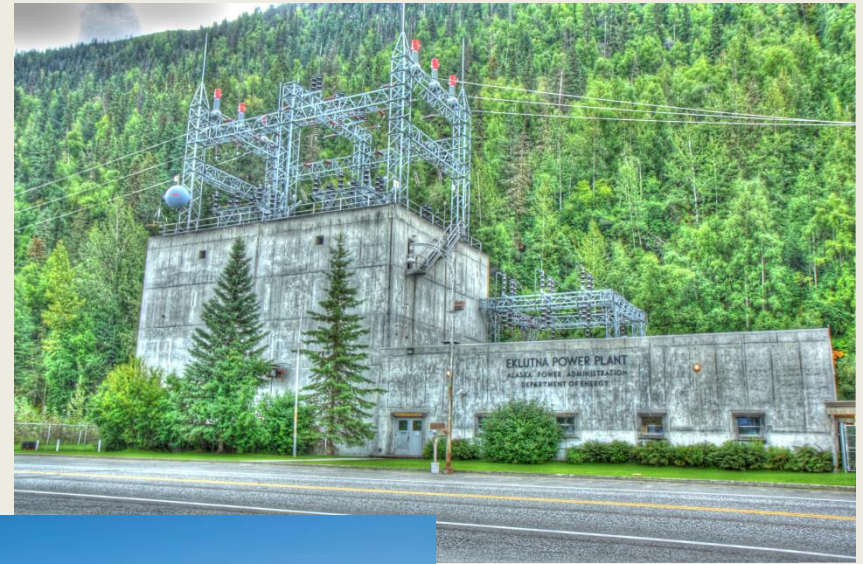
- Chugach contracts: large volumes, long-term, inexpensive gas, 3 producers, full service, met the needs of multiple utilities

■ 1980s – 2010s

- Chugach contracts: large volumes, long-term contracts, reasonable prices, 4 producers, full service, met the needs of multiple utilities

■ 2010s – 2020s

- Chugach contracts: smaller volumes, shorter duration, limited service, tight scheduling requirements, multiple producers, meet the needs of Chugach retail members & the Seward Electric System



State of Alaska photo

Natural gas as a generation fuel

- ~85% of Southcentral generation is dependent upon natural gas
- Uncertainty about supply or deliverability creates concern

What does uncertainly look like?



Organizations throughout the Railbelt are making plans to deal with a potential natural gas shortfall this winter. While it's not considered likely, all agree that it is important to be prepared. Nobody wants to be caught unprepared on a cold, dark winter evening. That's why the electric utilities in the Railbelt, ENSTAR, the Municipality of Anchorage, and the Kenai Peninsula and Mat-Su boroughs have been working together on a collective approach to the situation.

YOU CAN HELP IN A NATURAL GAS EMERGENCY. HERE'S HOW.

If a gas delivery problem develops, emergency managers might issue an alert using this Energy Watch chart.

Energy Disruption Customer Action Plan		
CONDITION	MEANING	CUSTOMER ACTION
Green	Stable	Use energy wisely; be conservation minded Your utilities can provide tips on saving energy
Yellow	Caution	Set thermostat to 65 degrees in living areas, and 40 in the garage Lower water heater setting to "warm" or "vacation" Minimize usage of natural gas range Postpone doing laundry and dishes Turn off unnecessary lights and electronics
Red	Alert	Set thermostat at 60 degrees in living areas (55 if away) Turn water heater gas valve to "pilot" Do not use natural gas fireplaces, decorative heaters or gas grills Consolidate household activities into as few rooms as possible

**EVERY LITTLE BIT COUNTS.
TOGETHER WE CAN MAKE A DIFFERENCE.**

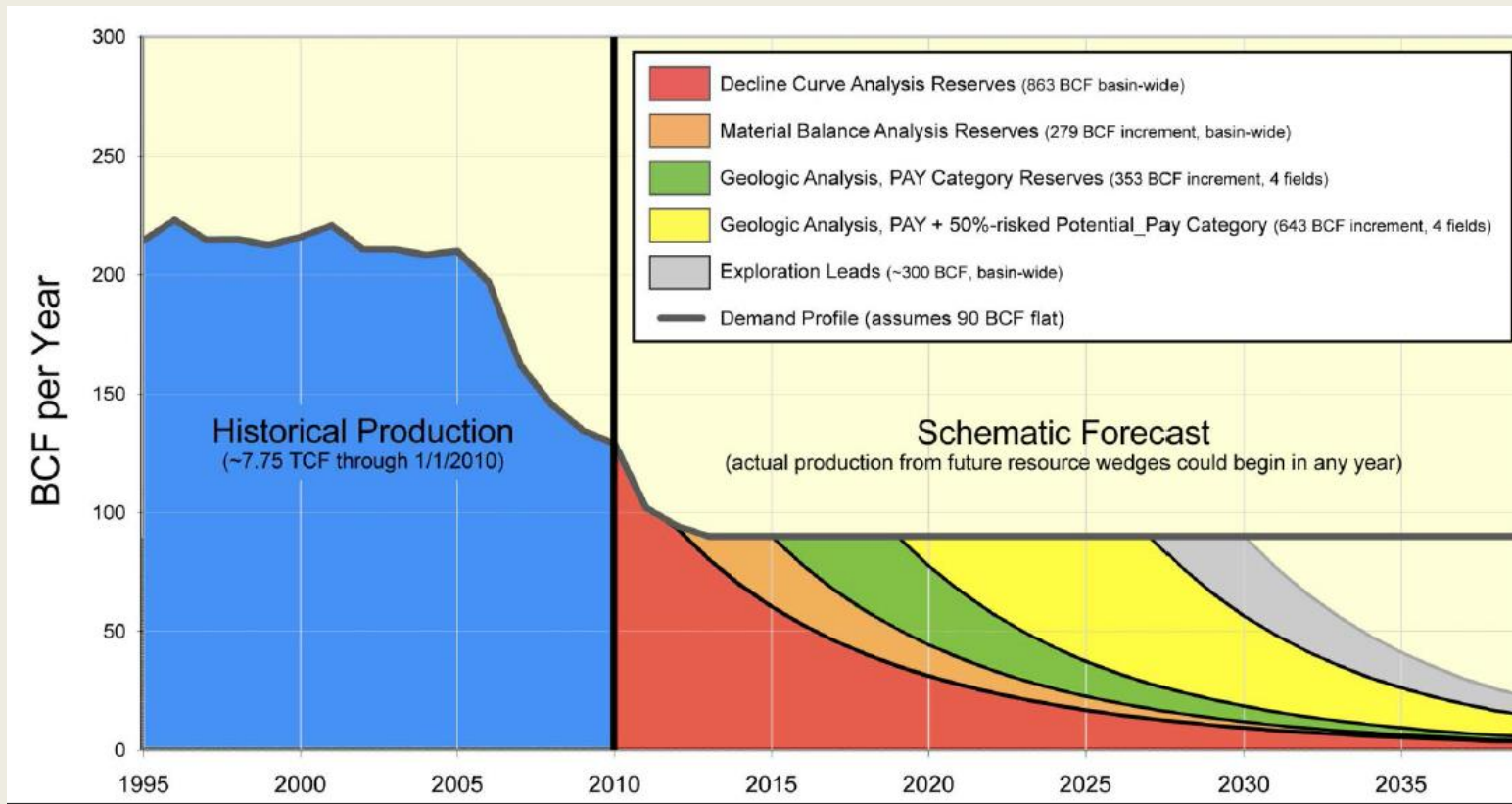


positiveENERGY

2 key terms

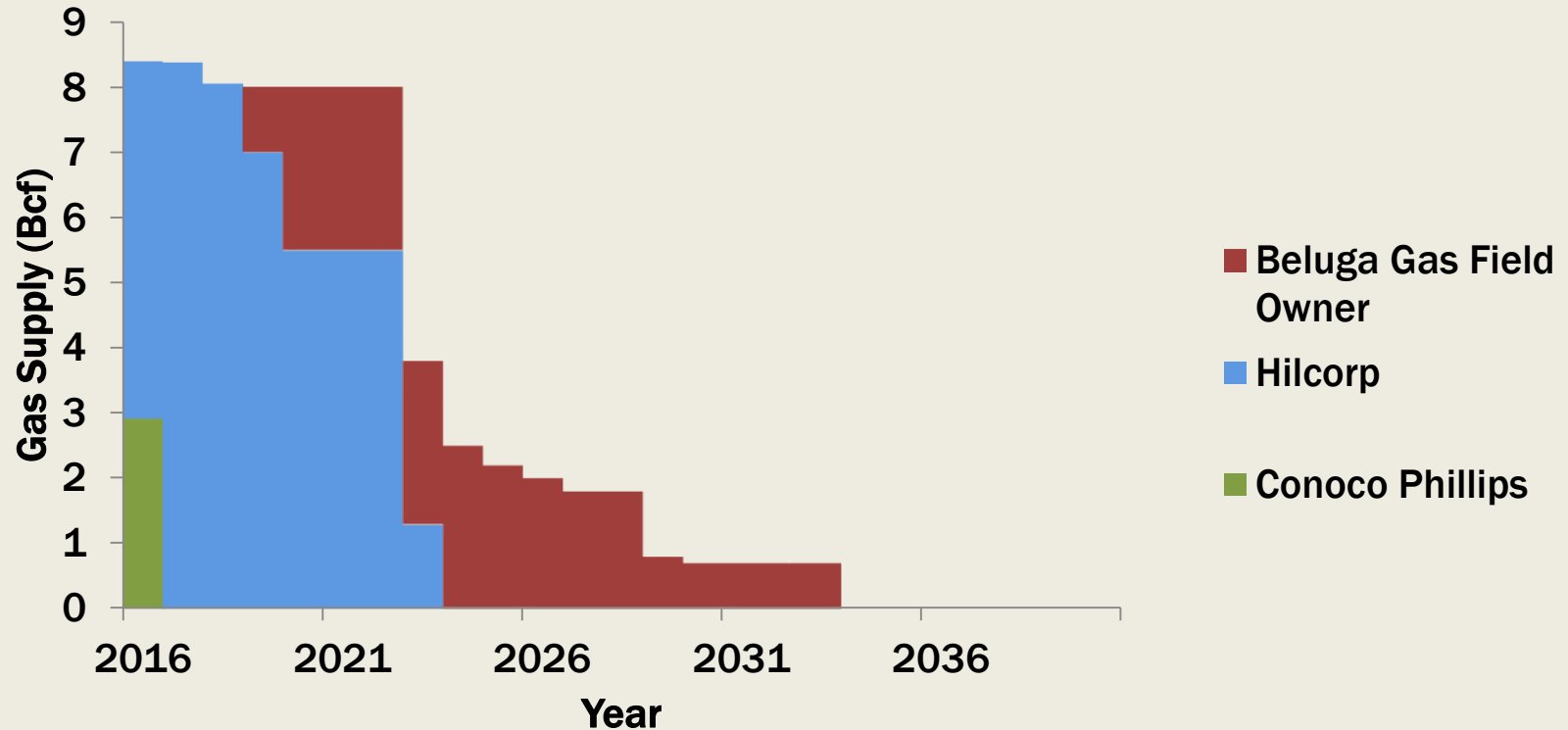
- Volume
- Deliverability

Cook Inlet Gas Supply

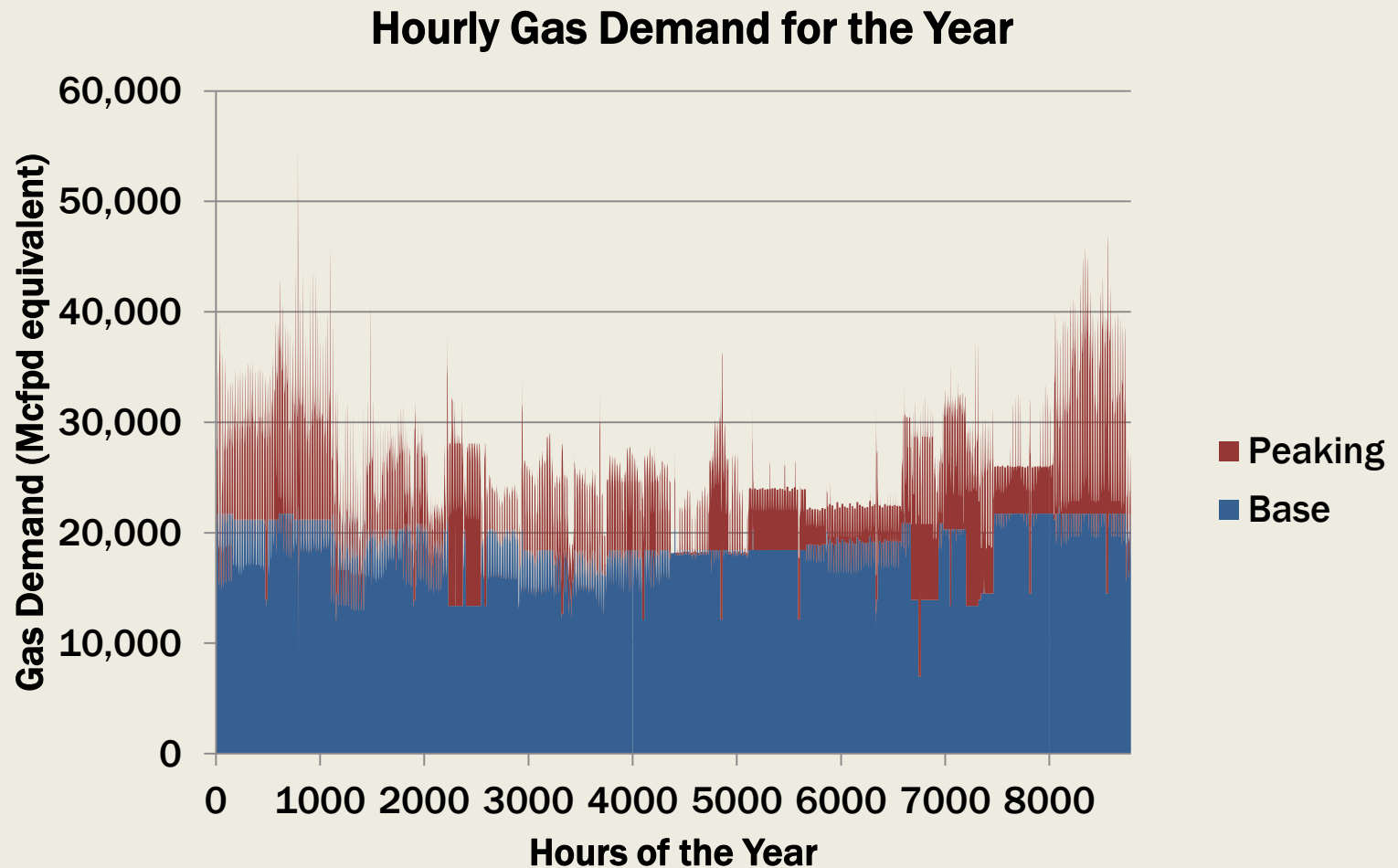


Chugach Electric's Gas Supply

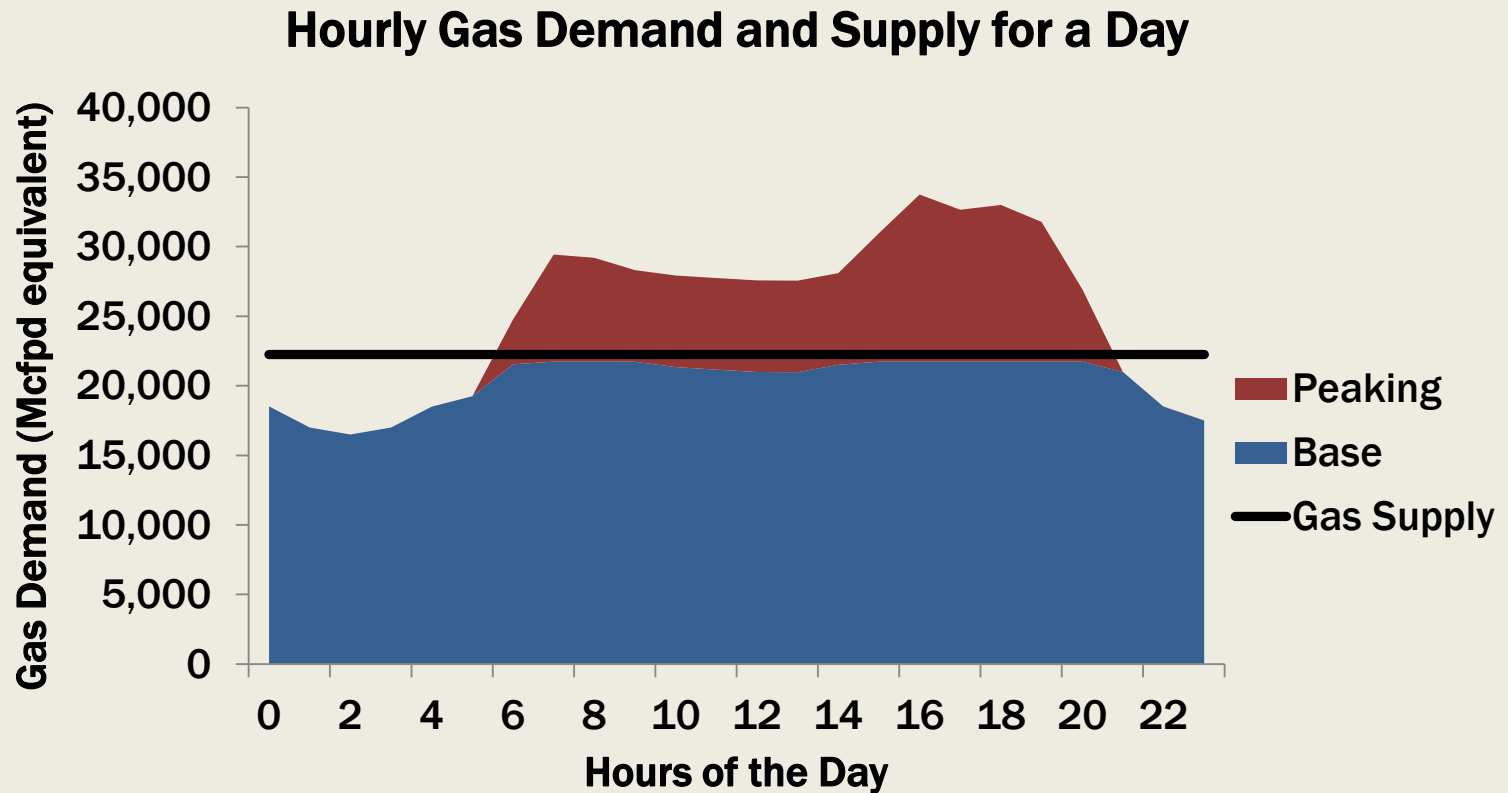
Gas Supply by Contract and Ownership



Chugach Electric's Gas Supply



Gas Storage Meets Peak Gas Demand



Conclusion

- Chugach's gas needs are fully met for the next 7 years.
- Lead time to develop the gas supply and deliverability is 5 to 8 years.
- DNR September 2015 report indicated Cook Inlet gas reserves are:
 - 700 Bcf proven (10 years)
 - 500 Bcf probable (5 years)
- Need to drill for this gas.