

2/11/09
INSTATE
USE OF
COOK
INLET GAS

Natural Gas Use Chugach Electric Association

**Bradley Evans, Chugach CEO
Senate Resources Committee
February 11, 2009**

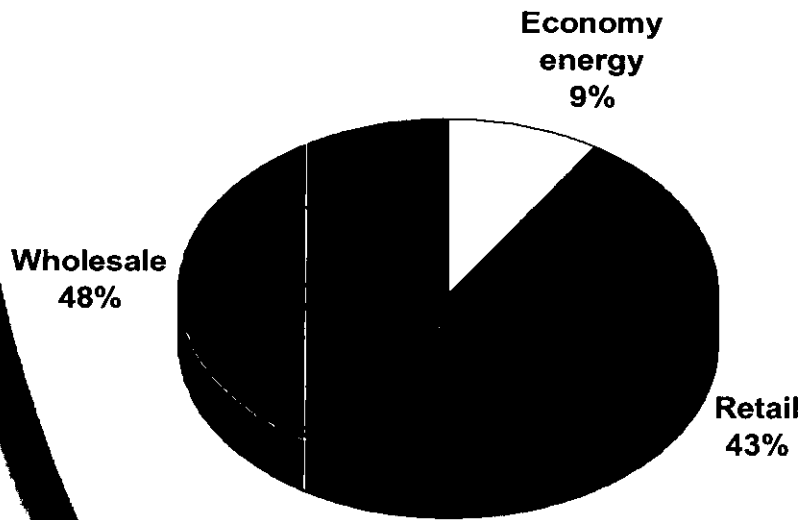
Chugach Overview

- **Alaska's largest electric utility**
- **Vertically integrated**
 - Generation, transmission, distribution
- **Retail, wholesale & economy energy sales**
 - 80,682 metered retail locations
 - Wholesale contracts with Matanuska Electric Association, Homer Electric Association, City of Seward
 - Economy energy sales to Golden Valley

2008 Power Sales

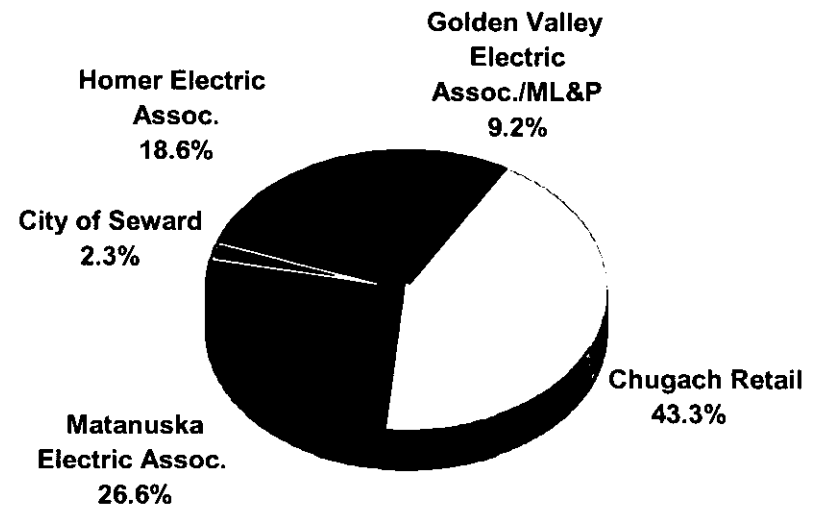
By Kilowatt-hours

Total 2,785,705,017 kwh

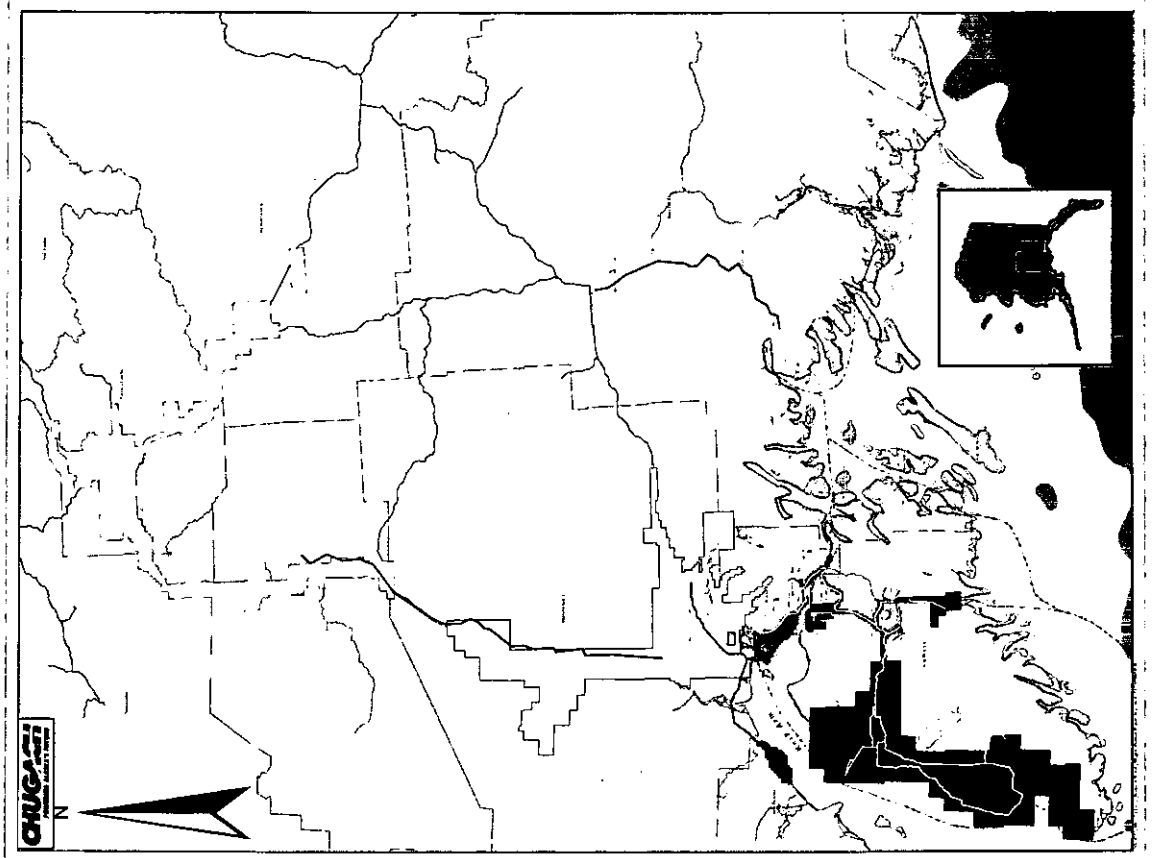


By Operating revenues

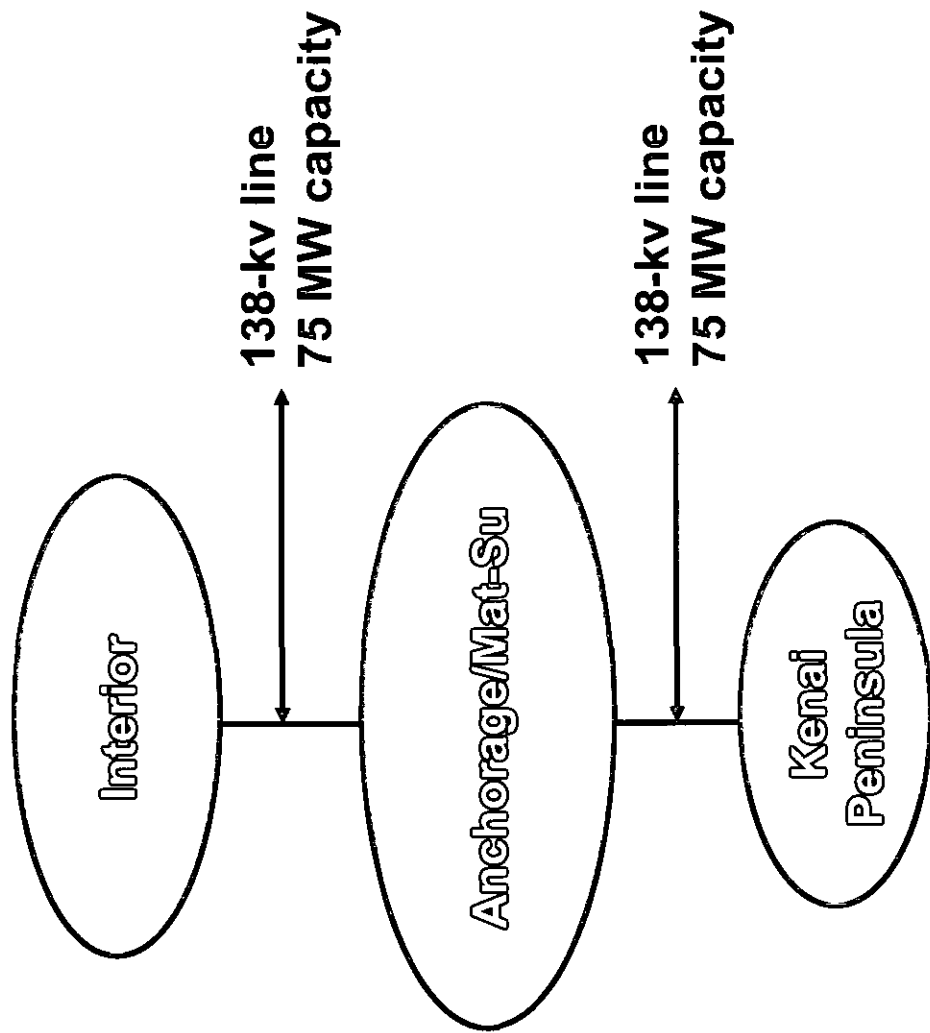
Total \$288,292,112



The Railbelt Grid



The Railbelt Grid



Generation

- **Railbelt**
 - 1,550 MW of installed capacity
 - Annual peak load 850-900 MW
- **Chugach**
 - 530 MW installed capacity (Chugach-owned)
 - 629 MW total capacity including Bradley Lake & Nikiski

Chugach Fuel Mix

- **Today**
 - 90% natural gas-fired
 - 10% hydro
- **Long-term vision**
 - Reduce dependence on fossil fuels
 - 90/10 to 10/90

Current Fuel Supply

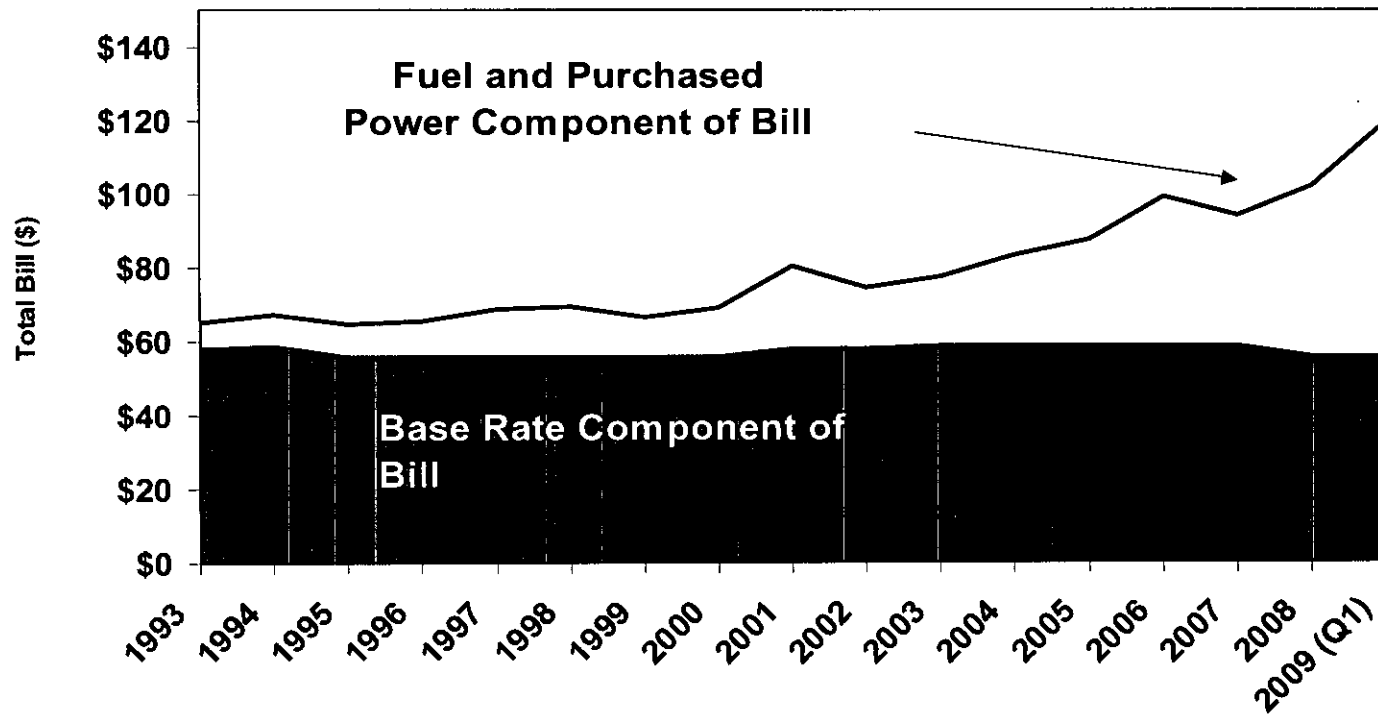
- **4 natural gas suppliers**
 - Marathon, ConocoPhillips, Chevron, ML&P
- **4 contracts**
 - Prices indexed to three commodities
 - Price changes quarterly based upon commodity changes over a rolling 12-month period
- **Volumetric contracts**
 - Volumes consumed by 2010 and 2011

Chugach Natural Gas Use

- **Annual consumption**
 - 30.8 BCF in 2008
- **2008 Natural gas purchases**
 - \$137.9 million (Chugach turbines)
 - \$20.3 million (Nikiski unit)
- **Current average price**
 - \$6.67 per MCF in 1st Q 2009

Monthly Residential Bill Total

(based on 700 kwh)



The price of gas is the leading cause of higher monthly bills

Current Chugach Activities

- **Gas contracts**
 - Negotiations underway for volumes beyond current contracts
- **New replacement power plant**
 - 183 MW, gas-fired, efficient, combined cycle Southcentral Power Project jointly owned
- **Conservation & renewables**
- **Supporting Railbelt Unified Power Provider**
 - Plan, finance, construct, operate G&T projects
 - Vehicle to develop major renewable projects

Meeting Customer Needs

- **Conservation**
- **Renewables**
- **Negotiating new gas contracts**
- **Create UPP**
- **Electric**
 - Efficiency (SPP)
 - Unified transmission
 - Economic renewables
 - Dual fuel
- **Fuel**
 - Exploration
 - Bullet/Spur line
 - LNG imports
 - Storage
- **Major renewable project(s) developed by UPP**

90/10 → Fossil fuel to renewable energy mix → 10/90

2009 → **2020 & beyond**

Current Natural Gas Situation

- **Natural gas is important to regional economy**
- **Moving from an era of abundance to limited supply raises new issues**
 - Security of supply
 - Affordability
- **Many organizations are involved**
 - Chugach, Enstar, the producers, DNR, DOR
 - Parties have different priorities
 - Knowledge is stove-piped
- **Prior activities have not produced a comprehensive resource management plan**

Cook Inlet today

Supply

Reservoir harvesting
Limited exploration

Demand

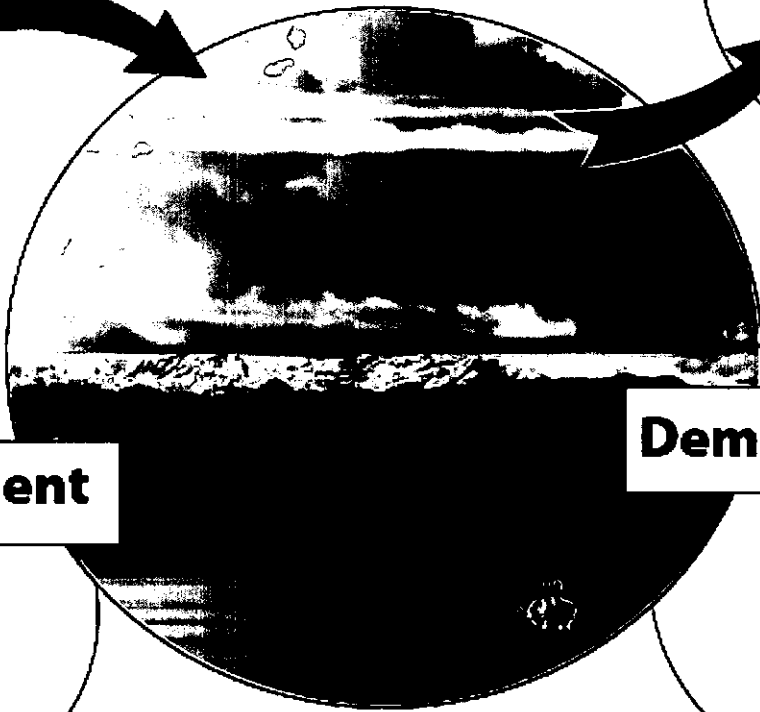
LNG exports
Gas utilities
Electric utilities
Military bases

Supply Management

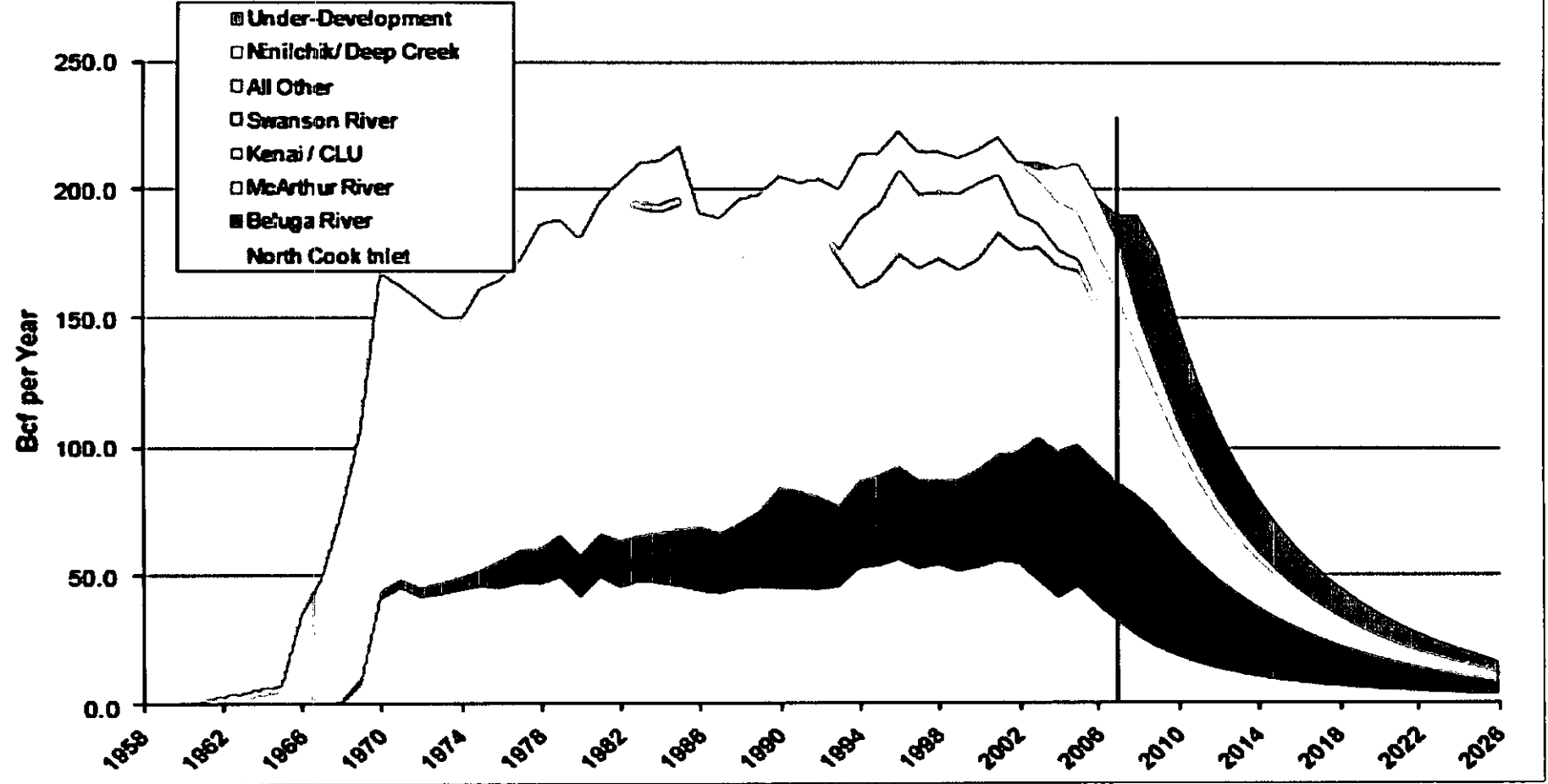
LNG interruptions

Demand Management

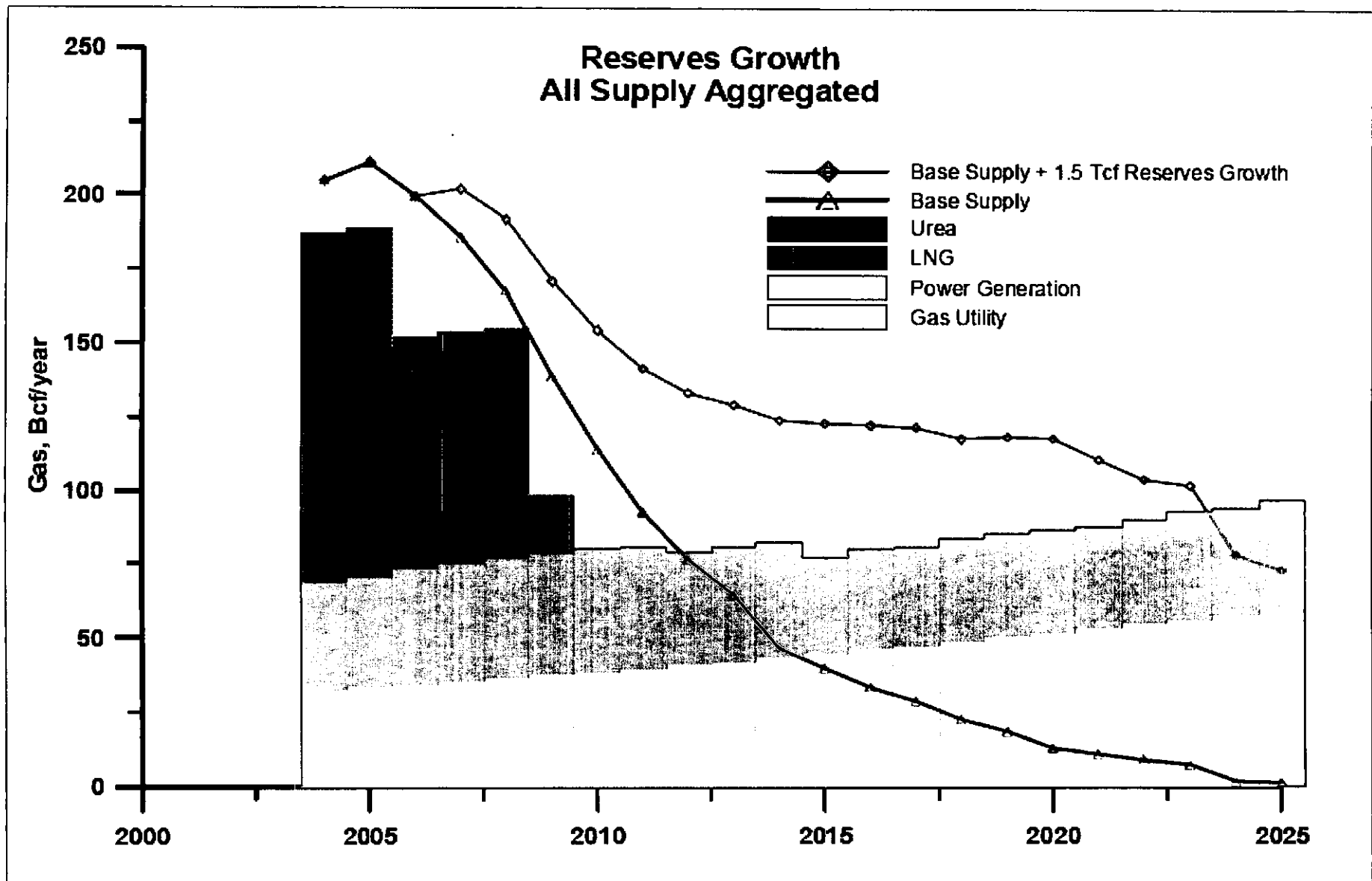
Conservation
Load interruptions



Cook Inlet Historic and Projected Natural Gas Production 1958 - 2026



Source: Division of Oil & Gas 2007 Report
1.68 Tcf Remaining Recoverable Reserves forecast

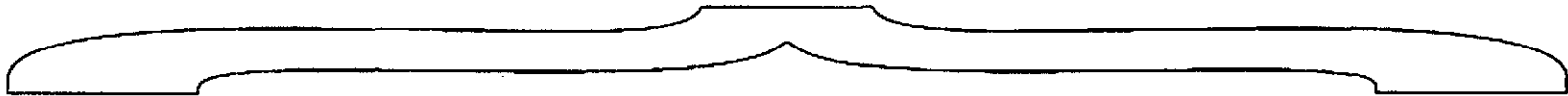


Slide courtesy of ANGDA

Comprehensive Cook Inlet Resource Management Plan

- **Meet & protect consumer needs**
- **Address fuel supply security**
- **Increase transparency & information sharing**
- **Provide input to a Railbelt IRP**
- **Provide guidance for investment decisions**
- **Optimize resource management**
- **Provide information for rational policy decisions**

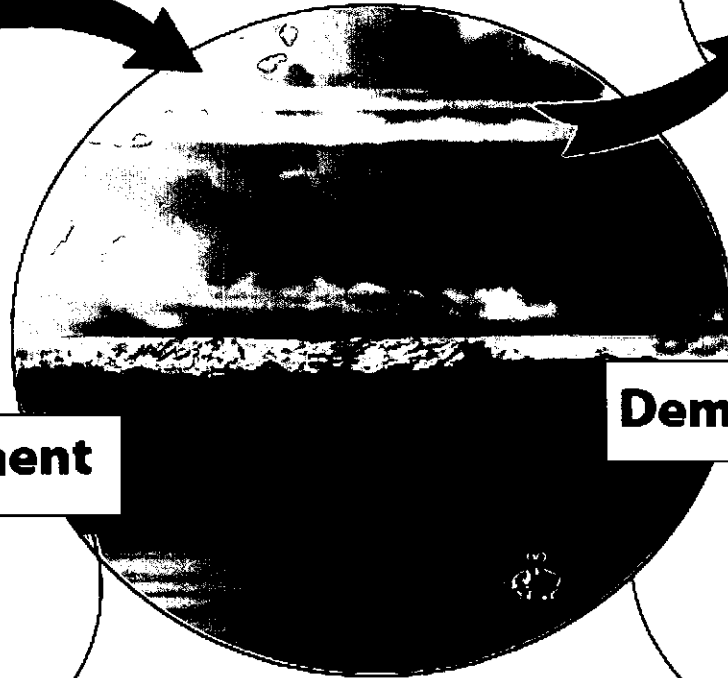
Cook Inlet Resource Management Plan



Supply

Reservoir harvesting
Expanded exploration
Bullet/Spur line

Cook Inlet in the future



Demand

LNG exports
Gas utilities
Electric utilities
Military bases
Industrials?

Supply Management

LNG interruptions
Storage

Demand Management

Conservation
Load interruptions
Efficiency
Renewables
Dual fuel