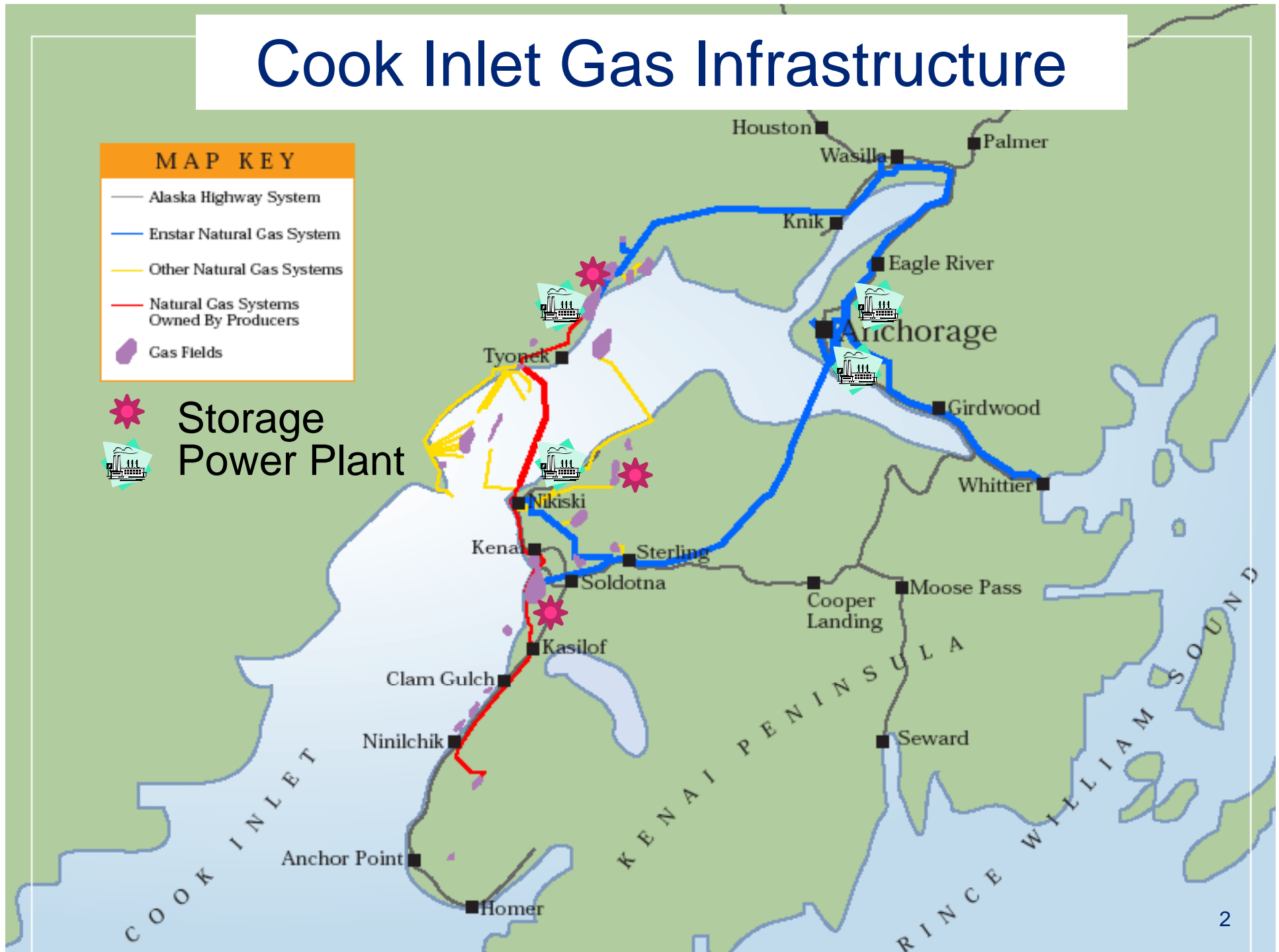




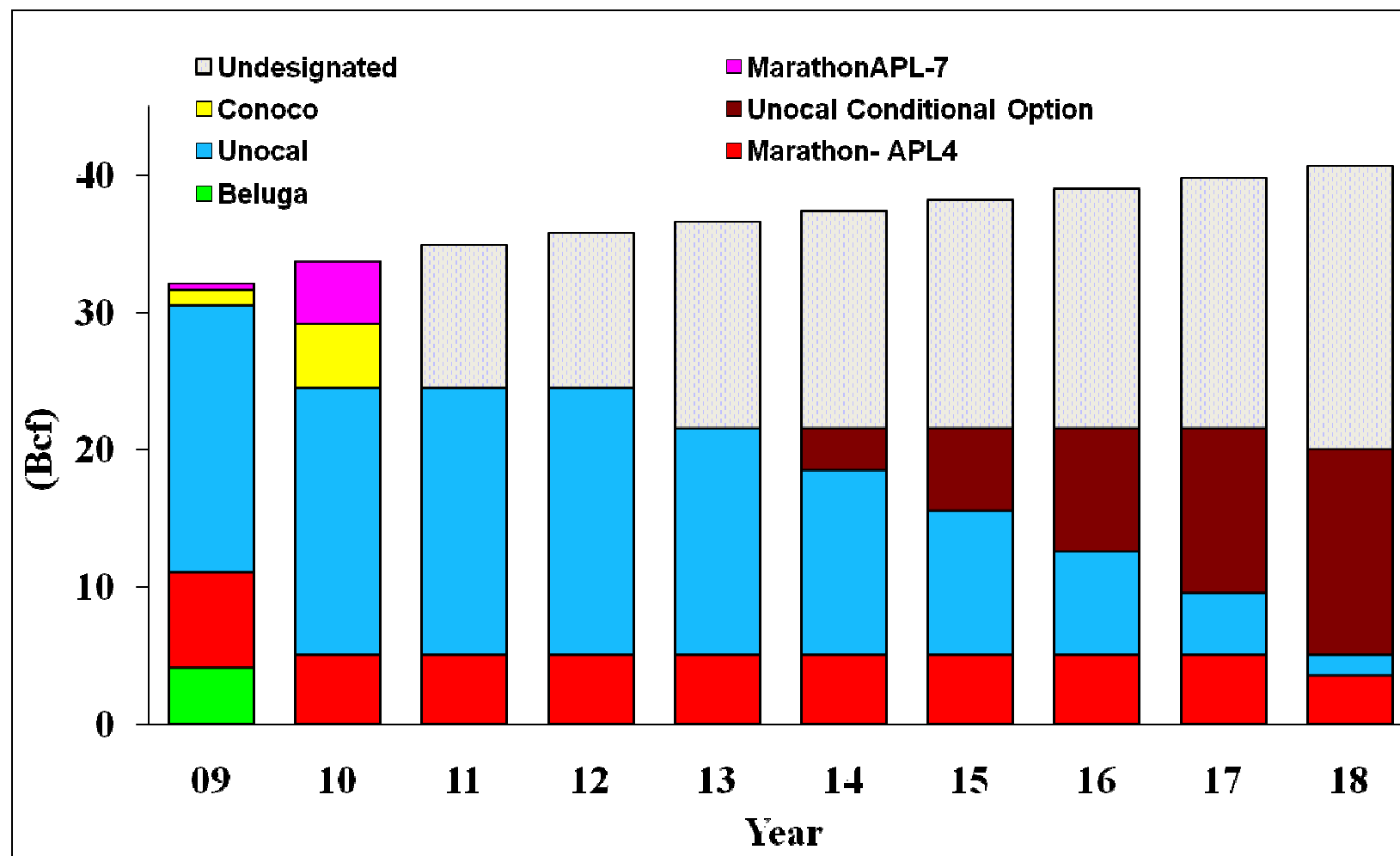
House Special Committee on Energy

September 1, 2009

Cook Inlet Gas Infrastructure



Gas Supply – Winter 2009/2010 Outlook



Cook Inlet Peak Day Comparison

	2/3/99	1/9/07	1/3/09
Average Temp	-19° F	-10° F	-11° F
On ENSTAR System	272	292	314*
Off ENSTAR System:			
CEA Beluga	83	83	60*
CEA/HEA Nikiski	14	12	12
Nikiski LNG	224	150	40
Fertilizer Plant	157	0	0
Other Industrials	<u>13</u>	<u>6</u>	<u>14</u>
Total Cook Inlet Deliverability Est.	763	543	440
Less Storage Volumes**	0	~43	~60
Well Supply	763	500	380

Volumes in MMcf

*CEA Beluga Received 20 MMcf from ENSTAR System

** Source DNR 3/17/09 House Energy Committee Presentation



All Our Energy Goes Into Our Customers

ENSTAR 2009/2010 Supply Portfolio

2009



Beluga River Unit Producers



ConocoPhillips



Marathon APL-4



Marathon APL-7



Union

2010



ConocoPhillips



Marathon APL-4



Marathon APL-7



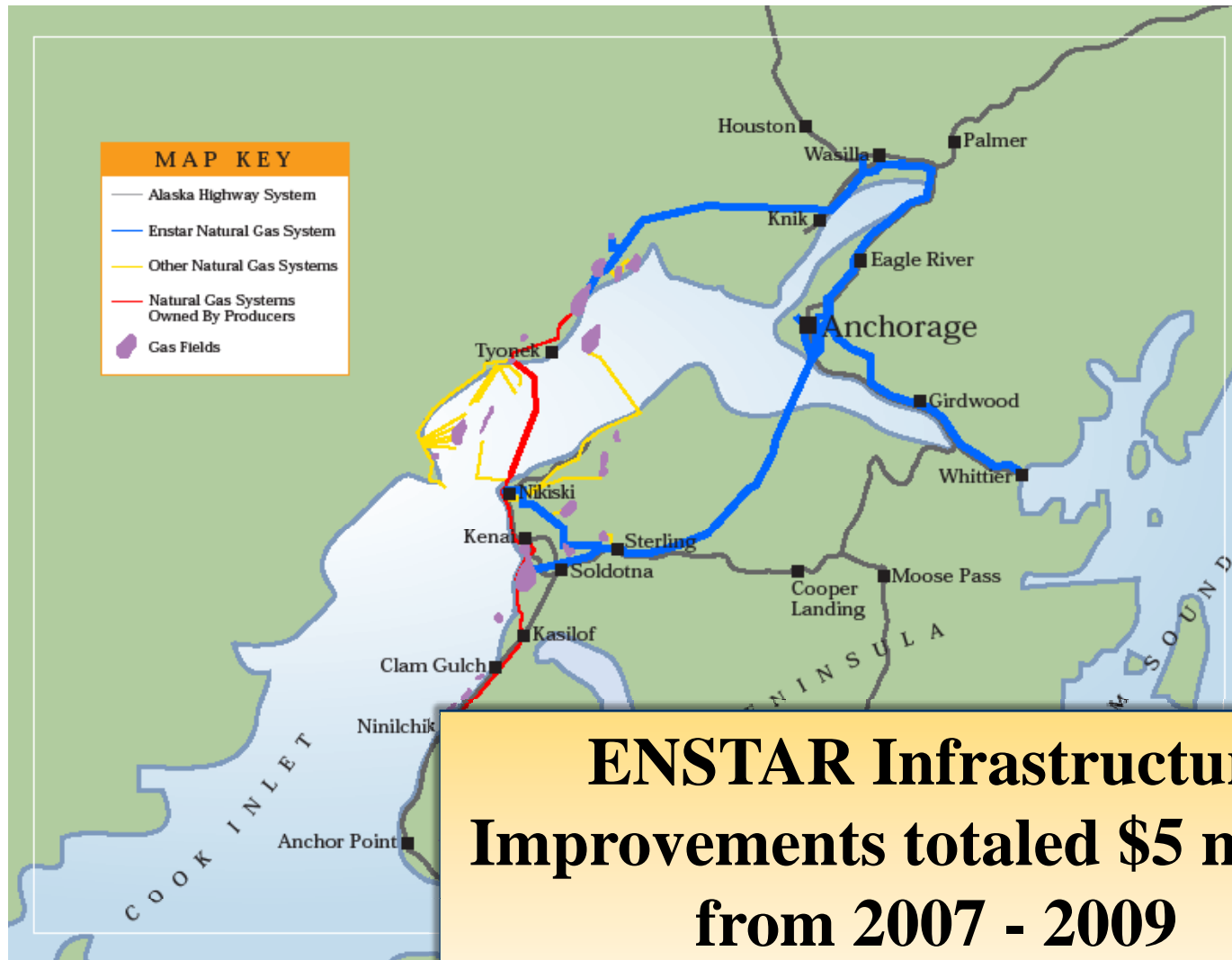
Union

FORECASTED PEAK 270MMcfd

FORECASTED PEAK 282MMcfd

ENSTAR's requirements are contracted for until Dec 31, 2010

ENSTAR System



ENSTAR Operations



ENSTAR staffed 24/7/365

- Trained staff to respond to emergencies



Central Operations center in Anchorage

- Regional Offices in Soldotna & Wasilla



Alternative Gas Control locations

- Wasilla & Sterling



Redundant Communications Network



Equipment & Supplies pre-staged

- Anchorage, Wasilla, Soldotna, & Sterling

ENSTAR Standard Operating Procedures



OPERATIONS DEPARTMENT STANDARD OPERATING PROCEDURES						
TABLE OF CONTENTS						
Updated:		May 29, 2009				
SOP NUMBER		REVISION NUMBER	Date Issued	TITLE	CFR 192 Procedure	This Procedure Applies to APC ENSTAR Fort Richardson (Dillon Utilities and Honeywell)
1000				General Information		
1	004	8/15/08		Emergency Mutual Policy Statement	No	x x x x
10	004	8/15/08		How to Use This Manual	No	x x x x
15	005	8/15/08		How to Add, Change or Delete a Procedure	No	x x x x
20	004	8/15/08		Operations Organization Chart	No	x x x x
1100				Emergency Procedures/Safety		
1	004	8/15/08		Emergency Communication Program	No	x x x x
5	014	8/15/08		ENSTAR Emergency Operating Plan	Yes	x x x x
10	010	8/15/08		Reporting Incidents	Yes	x x x x
15	004	8/15/08		Reporting Safety-Related Conditions	Yes	x x x x
20	002	8/15/08		Heating Conservation Program	No	x x x x
25	008	8/15/08		Operator Qualification Plan	Yes	x x x x
30	003	8/15/08		Excavation and ROW Safety	Yes	x x x x
35	006	8/15/08		Gas Cylinder Protection Standards	No	x x x x
40	003	8/15/08		Lockout/Tagout Procedures	No	x x x x
45	003	8/15/08		Excavation Standards	No	x x x x
50	004	8/15/08		Damage Response Procedures	Yes	x x x x
55	003	8/15/08		Uniform Policy	No	x x x x
60	004	8/15/08		Customer and Emergency Response Official Education Program	Yes	x x x x
62	003	5/29/09		Public Awareness Program	Yes	x x x x
65	002	8/15/08		Customer Pipe Notification	Yes	x x x x
70	002	8/15/08		Control Valve Entry Procedure	No	x x x x
75	003	8/15/08		Oil Spill Response and Cleanup Procedures	No	x x x x
85	003	8/15/08		Prevention of Accidental Ignition of Natural Gas	Yes	x x x x
90	003	8/15/08		Eye Protection Policy	No	x x x x
1200				Security		
1	002	8/15/08		Security Assessment and Security Plan	Yes	x x x x
5	004	8/15/08		Unauthorized Natural Gas Usage Prevention and Handling Procedures	No	x x x x
10	005	8/15/08		Security Practices for Valves, Regulator Stations and Metering Stations	Yes	x x x x
1300				Engineering and Design		
5	004	8/15/08		Station and Valve Identification Numbering System	Yes	x x x x
6	002	8/15/08		Operating Valve Maintenance Procedures	Yes	x x x x
10	003	8/15/08		Tracing System Class Location and MACP Review Procedures	Yes	x x x x
15	003	8/15/08		Engineering Records Retention Procedures	No	x x x x
20	003	8/15/08		Expenditure Request	No	x x x x
1400				Damage Prevention		
1	005	8/15/08		Damage Prevention Program	Yes	x x x x
5	008	8/15/08		Line Location Policy and Procedures	No	x x x x
15	003	8/15/08		Routine Leak Surveying Procedure	Yes	x x x x
20	011	5/29/09		Pipeline Surveillance and Patrol	Yes	x x x x
25	005	8/15/08		Investigation of Accidents and Material Failures	Yes	x x x x
30	003	8/15/08		Pipeline Markers	Yes	x x x x
1500				Corrosion Control		
5	010	4/17/09		Corrosion Control Policy	Yes	x x x x
1600				Gas Control		
1700				Gas Measurement and Regulation		
1	003	8/15/08		Safe Entrance to Gas Handling Facilities	No	x x x x
5	004	8/15/08		Regulator Station Maintenance Procedure	Yes	x x x x
10	001	8/15/08		Periodic Meter Change-Out Program	No	x x x x
15	007	4/17/09		Meter Location Standards and Drawings	No	x x x x
20	004	8/15/08		Natural Gas Odorant Handling Procedures	Yes	x x x x
30	002	8/15/08		Management Meter Handling Techniques	No	x x x x
35	001	8/15/08		Meter Control System	No	x x x x
1800				Compressor Stations		
5	004	8/15/08		Guadalupe Compressor Station Operation	Yes	x x x x
10	003	8/15/08		Kalfornsky Compressor Station Operation	Yes	x x x x
15	002	8/15/08		Compressor Station Maintenance	Yes	x x x x
20	004	8/15/08		Compressor Station Tests and Inspections	Yes	x x x x

SOP Table of Contents

Updated: 5/29/2009

Page 1 of 2

Standard Operating Procedures



Comprehensive Review of Emergency Operating Plans

- Gas Supply Disruption
- Gas Leaks
- Damages- contractors/homeowners
- Natural Disasters
- Fires



Employee Training

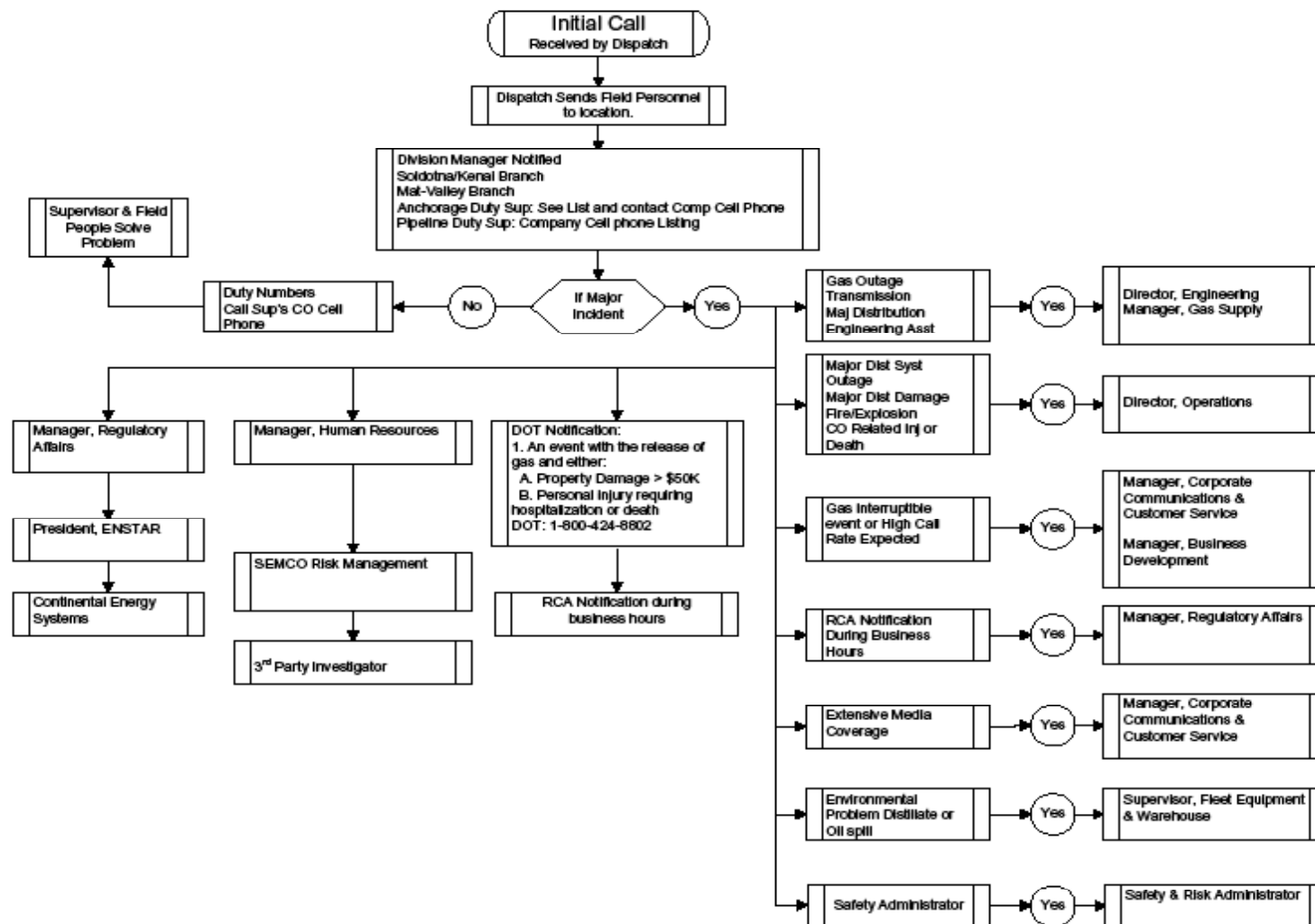
- Operator Qualifications Program



PHMSA annually audits ENSTAR

- Two audits successfully concluded early summer 2009

ENSTAR Emergency Response Call Tree*



*phone numbers redacted

Cook Inlet Gas Supply Coordination

-  Primary utility users of gas



-  ENSTAR hosts Annual Shippers/Producers Meeting
-  Shippers forecast demand
 - Annual/Monthly/Daily
-  Daily nominations on ENSTAR Pipelines coordinated between
 - ENSTAR/Shipper/Supplier



All Our Energy Goes Into Our Customers

ENSTAR Contingencies

-  Updated Gas Emergency Agreement
-  Specific ENSTAR contracts have “Peaking” or “Excess” gas purchase rights
 - **IF AVAILABLE**
-  Alternative delivery locations into the ENSTAR pipeline system
-  RCA Approved cost recovery system
 - ENSTAR Tariff Section 1200
 - “Cost Causer - Cost Payer”
-  Significant incentive for shippers to provide appropriate quantity of gas for their own customers

GAS EMERGENCY AGREEMENT LETTER

ENSTAR Natural Gas Company (ENSTAR), Chugach Electric Association (CEA), Municipal Light & Power (ML&P) and Golden Valley Electric Association (GVEA) hereby referred to as the Parties agree to work cooperatively together to minimize the effect on the public of a shortage of natural gas in accordance with the principles in this letter.

The Parties recognize the difficulties caused by the loss of electricity in Southcentral Alaska and will work together in good faith to keep the interconnected generation and transmission system energized and as many customers energized as possible.

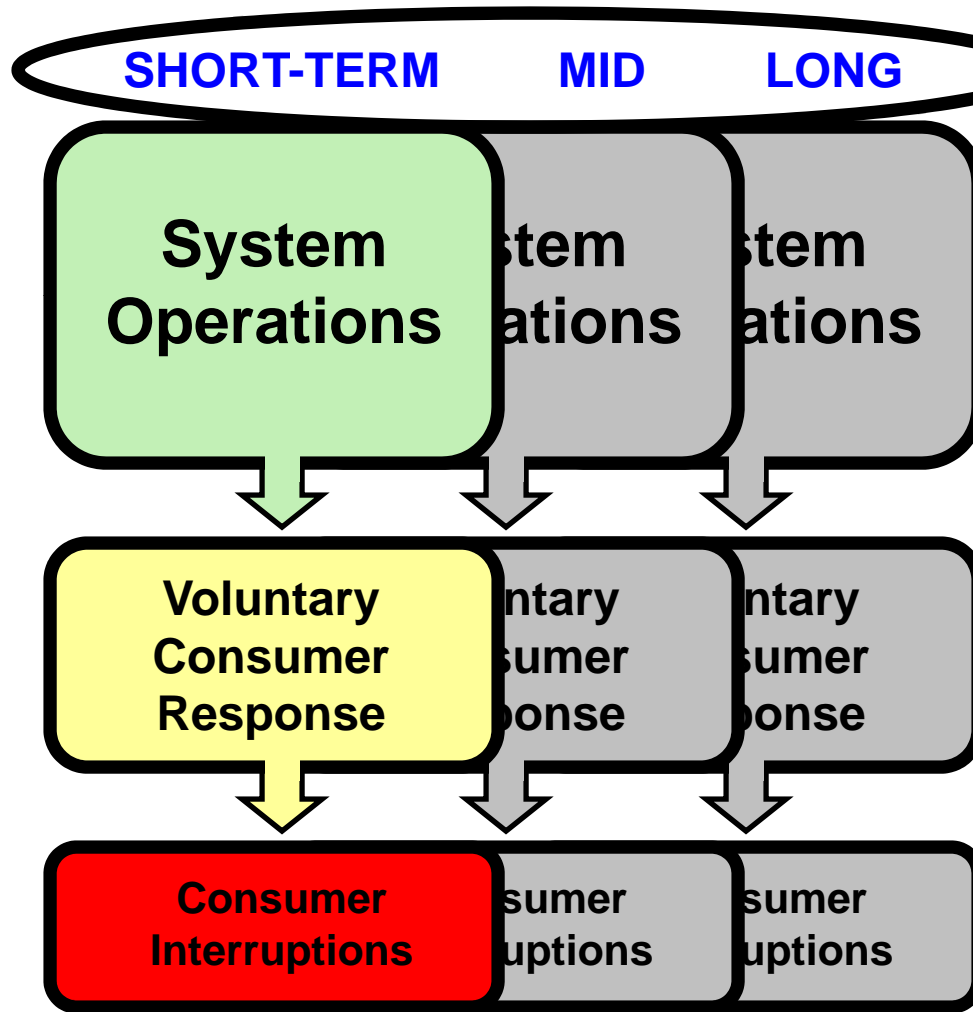
The Parties recognize the difficulties caused by the depressurization of the gas transmission and distribution system and will work with ENSTAR to maintain transmission and distribution gas pressures.

At the onset of any emergency restricting the amount of gas available, ENSTAR Operations Center personnel will contact Southcentral Power Control Centers to mutually determine a course of action. ENSTAR will also simultaneously work with the, natural gas producers, 3rd party marketers and industrial users of natural gas. Depending upon the event the following alternatives (priority order determined by the event) will be used to limit the effect of the emergency:

- Curtail ENSTAR deliveries to interruptible customers;
- Curtail non-firm power sales (Economy Energy Sales);
- Maximize hydro generation;
- Shift electric loads between power plants to address gas production and transportation problems (may cause inter-utility sales/purchases);
- All Parties call upon backup supplies of gas if available;
- Shift power plants to alternate fuels in accordance with Section 1200 (Interruption) of the ENSTAR Tariff;
- Import electricity from Fairbanks;
- Appeal to the public to reduce use of gas (ENSTAR);
- Appeal to the public to reduce use of electricity (electric utilities);

Gas Emergency Agreement Letter August 25 2009 -1-

Gas Supply Interruption Incident Response Overview*



DRAFT Utilities Emergency Response Overview

Short-term (Hours to days)	Mid-term (Weeks to months)	Long-term (Years)
System Ops (In no particular order, depends on situation) <ul style="list-style-type: none"> Shut gas from LNG plant (steam shutdown) Reduce/eliminate spinning reserve (Chugach arm SLOD) MLAP/Chugach generation swap (Joint decision) MLAP converts to liquid fuel (MLAP decision) Emergency gas purchases (beyond contractual requirement) Adjust generation mix based on deliverability BESS Seward on own generation Non-ENSTAR/APC system users of gas are interrupted Interruptible gas customers are curtailed 3rd Party Gas Marketers adjust deliveries Adjust gas flows to MLAP as needed Adjust gas delivery points based on deliverability 	<ul style="list-style-type: none"> Shut gas from LNG plant (steam shutdown) Golden Valley Electric Curtail energy sales Purchase up to 75 MW Interrupt Seward Electric Sharing agreements Emergency rates (would require tariff) Portable generators (i.e. issue from GE and use of bladder) MLAP to continue liquid fuel (MLAP decision) Evaluate spinning reserve 	<ul style="list-style-type: none"> Southcentral Power Project More renewables Wind, geothermal, hydro Gas storage LNG, in-ground Replacement generation MLAP Plant 1 & 2 IGT - liquid fuel conversion Purchase power from GVEA Cool Int Pressure Management Plan Integrate Seward generation Additional BESS to reduce spinning reserve Long-term rate design changes Integrate gas transmission system
Voluntary Actions <ul style="list-style-type: none"> Switches under Public Gov't control Must follow state regulations Commercial Self-generation (not with natural gas) Reduce exterior lighting Residential Action short Utilities own facilities Cut non-essential load at utility facilities Reduce non-essential gas consumption - Retail & Commercial 	<ul style="list-style-type: none"> Widescale Matanuska Electric Home Electric Seward Electric Conservation/Efficiency Power Education Smart metering Audio Dispatchable alternative self-generation 	<ul style="list-style-type: none"> Widescale Matanuska Electric Home Electric Seward Electric Conservation/Efficiency Smart metering Audio Dispatchable alternative self-generation
Interruptions <ul style="list-style-type: none"> Shared responsibility among utilities Fairness, sensitivity to critical loads, rotation 20 to 30 minutes per outage Gas Curtailments of Commercial Accounts 	<ul style="list-style-type: none"> Feeders prioritized Shared responsibility among utilities Fairness, sensitivity to critical loads, rotation 20 to 30 minutes per outage Gas Curtailments of Commercial Accounts 	<ul style="list-style-type: none"> Feeders prioritized Shared responsibility among utilities Fairness, sensitivity to critical loads, rotation 20 to 30 minutes per outage Gas Curtailments of Commercial Accounts

DRAFT—Customer Action Plan

DRAFT - Energy Disruption Customer Action Plan

CONDITION	MEANING	Customer Action (Natural Gas Usage)	Customer Action (Electric Usage)
Green	Systems Good	Normal activity Use energy wisely - Be conservation-minded Your utilities can provide tips on saving energy	Normal activity Use energy wisely - Be conservation-minded Your utilities can provide tips on saving energy
Yellow	Caution	Set thermostat at 65 degrees in living areas, and 40 in the garage Lower water heater setting to "Warm" or "Vacation" Minimize usage of natural gas ranges, and clothes dryer Do not use natural gas fire places, decorative heaters or grills. Do not use natural gas hot tubs	Postpone doing laundry or dishes Turn off unnecessary lights and electronics Turn off unnecessary space heating, especially in unused rooms Avoid using heat bulb heaters Avoid using hot tubs
Red	Emergency	Set thermostat at 60 degrees in living areas (20°F lower) Turn water heater gas valve to "Off" Do not use natural gas fireplaces, decorative heaters or gas grills	Preheat with electricity, use of heater rooms also user heat required to minimum setting Consolidate household activities into as few rooms as possible Use the microwave for cooking

*Source CEA 8/26/09 RCA Presentation

Actions & Next Steps



Utilities updated RCA 8/26/09



Gas & electric system operator tabletop scheduled for 9/10/09








ENSTAR hosts Annual Shippers/Producer meeting 9/17/09



Coordination with Municipality of Anchorage

- Utilities & MOA meeting today on coordination plan
- By September 18, 2009 - community education plan
- October 2009 - Energy conservation month & notification of alert status
- October 2009 – Conduct real-world test of voluntary curtailment
- By October 23, 2009 - complete MOA Emergency Action Plan
- By November 6, 2009 – MOA tabletop exercise
- By November 13, 2009 - Review of MOA tabletop exercise and modify MOA Emergency Response Plan accordingly

In Conclusion

-  Cook Inlet deliverability continues to decline
-  Mutual aid planning & coordination among the utilities is occurring but not a long term solution
-  Coordinated customer awareness & education efforts are ongoing
-  Utilities, producers, local and state governments must work together for long term solutions to ensure the safety and security of our communities for heat and power
-  Regulatory and fiscal certainty are required to achieve long term solutions

Questions and Comments