ALASKA LEGISLATURE COMMITTEE FILES 2001-2002 8672

10657 SENATE RESOURCES

502

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

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February 28, 2002

The Honorable John Torgerson
Chairperson, Senate Resources Committee
Room 427, Capitol Building
Juneau, AK 99801

Re: SB 141, Shellfish Growing Areas

Dear Senator Torgerson:

I have had a chance to discuss the above-referenced legislation with Rodger Painter with the Alaska Shellfish Grower's Association. As you know, we did include a fiscal note on this bill because we interpreted "suitable" to mean certified under the National Shellfish Sanitation Program (NSSP).

While the definition of "suitable" was not discussed in any of the testimony on the bill that I heard, Rodger did point out some very legitimate problems with certifying an area so early in the process. Therefore, I will be submitting a zero fiscal note on the committee substitute when it arrives in the Senate Finance Committee. Certification under the NSSP normally takes place shortly before commercial harvesting begins. Although the industry currently pays for a part of the cost to certify growing areas and we would expect that to remain the case, there will be an increased cost to the department when certification of growing areas is required. However, from talking with Rodger, I believe those costs will be incurred after the time frame covered by the fiscal note form.

I hope our misunderstanding of the bill and the resultant fiscal note did not cause you any undue problems in moving this legislation, and please accept my sincere apologies if it did.

Sincerely,

Janice Adair
Director

cc: Michele Brown, Commissioner

Safe Food, Safe Water, Healthy Communities

Why Clam Farming?

Alaska has enormous potential as a supplier of littleneck clams, often called steamer clams, to the seafood market. Past and current efforts to develop a commercial fishery on the abundant clam resources of Alaska have resulted in limited harvest caused by logistics and economic problems associated with managing the fishery. At present, only Kachemak Bay has a commercial harvest of littleneck clams, and because of depleted stocks, the fishery is limited to only 25,000 pounds annually.

The topic of clam farming in Alaska first appeared as an agenda item at the 1987 4^{lh} Alaska Sea Grant Aquaculture Conference. With high worldwide consumer demand for steamer clams and short supply of littleneck clams for the Alaska seafood market, new and existing farms are eager to pursue clam farming.

In 1991, Alaska's original clam farmers were allowed to harvest clams only under commercial fisheries regulations of the Alaska Department of Fish and Game (ADF&G). The first official clam farms were permitted in 1993. Expecting broader interest in clam farming a conference, titled Broadening Shellfish Farming Opportunities in Alaska, was sponsored in 1996 by the ADF&G, the Alaskan Shellfish Growers Association, and the University of Alaska Marine Advisory Program. The purpose of the conference was to begin development of a regulatory program for on-bottom aquaculture in Alaska. At the conference, ADF&G representatives issued a clear statement that the department did not have the resources to manage a commercial clam fishery beyond that existing in Kachemak Bay and favored development of clam farming.

By the end of 1997, three aquatic farmers have obtained tidelands leases to farm littleneck clams in southeastern Alaska. Their combined 1998 harvest was 35,014 pounds of clams worth nearly $87,535.

What is Clam Farming?

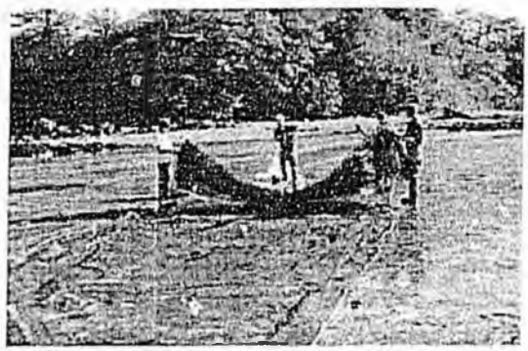
Farming clams requires application of well established farming practices to an existing clam population that will increase the beach productivity and allow for a sustained harvest of the enhanced clam population. In Alaska, farming activities include:

1. Regular inventories of standing stock and determination of the size composition of the clams.
2. Optimizing growth and production of clams by controlling their density by harvest planning, redistribution of seed from overstocked parts of the bed, and/or planting hatchery produced clam seed.
3. Reducing clam mortality by appropriate use of predator exclusion netting.
4. Maintaining the beach free of major deposits of large debris and improving the substrate quality.
5. Harvesting clams to maximize their value and marketability.
6. Complying with the required Alaska Department of Environmental Conservation water quality testing program, and marine toxin certification of farmed product.

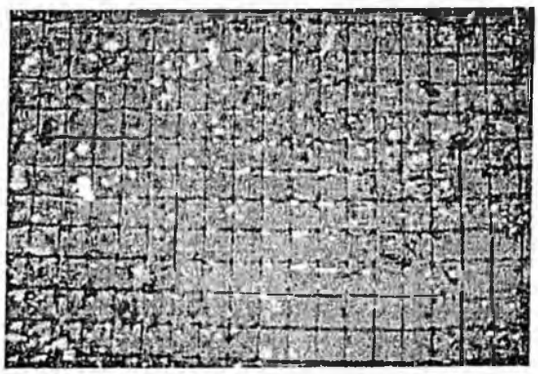
Performance of these farming activities, is far beyond what is required of a commercial clam harvester.

What is a clam farm? A pictorial tour

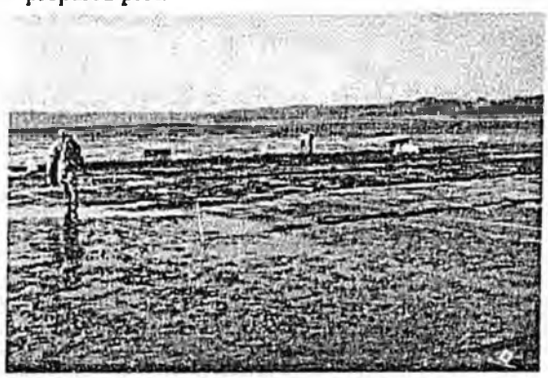
Clam farming may require application of predator exclusion netting. In this picture, a trench has been dug to anchor the margins of the net.



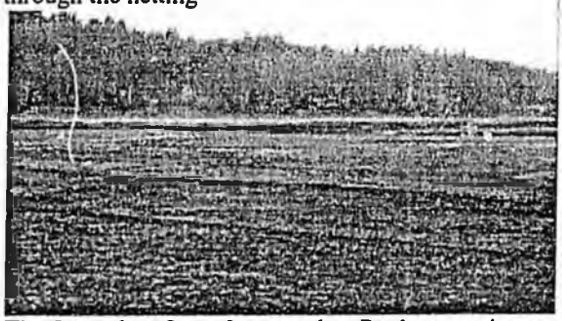
Predator exclusion netting is rolled out over the prepared plot.



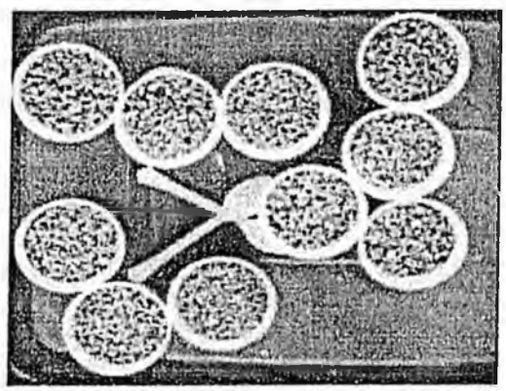
Predator netting is about 1" square mesh. It is not intended to exclude all predators. Crabs and starfish are the farmers primary concern. Birds can feed through the netting



Predator nets anchored and ready for seeding clams.



The farm plot after a few months. Predator netting is partially covered by sediment and algae growth.



Measured quantities of clam seed ready for planting the farm.

Planting clam seed over the netting. Clams are smaller than the net mesh and will dig themselves in as the tide covers them.

In Alaska, clam harvesting is done by hand.

Impacts of clam farming

Environmental (Statements in parenthesis are editorial comments needed for clarification).

Mojica, R. and W.G. Nelson. 1993. Environmental effects of a hard clam (*Mercenaria mercenaria*) aquaculture site in the Indian River Lagoon, Florida. Aquaculture. Volume 113, page 326.

- "Measurements of water column nutrients and chlorophyll concentrations gave no indication of changes..."
- "sediment differences were not associated with significant changes in benthic dwelling organisms."
- "Differences in mobile macrofauna were minimal ..." (between aquaculture and natural sites)

Spencer, B.E., M.J. Kaiser, and D.B. Edwards. 1997. Ecological effects of intertidal Manila clam cultivation: observations at the end of the cultivation phase. Journal of Applied Ecology. Number 34. Page 451.

> "Our results suggest that the biotic and abiotic changes caused as a result of clam cultivation are relatively benign compared to other forms of marine cultivation..."

Kaiser, M.J., I. Laing, S.D. Utting, G.M. Burnell. 1998. Environmental impacts of bivalve mariculture. Journal of Shellfish Research. Volume 17. Number 1. Page 63.

> "...the benthic community within dredged plots was indistinguishable only 3 months after harvesting regardless of the scale of disturbance,..."

Brooks, K. 1996. Intensive clam culture and the environment. Proceedings of the conference: Broadening Alaska's shellfish farming opportunities: A conference and workshops focusing on public issues involved with the development of on-bottom culture of indigenous shellfish. University of Alaska Marine Advisory Program. Anchorage, Alaska. Page 41.

> "Of all the forms of aquaculture, intertidal shellfish culture is undoubtedly the most benign. If you minimize encroachment on eel grass beds and find effective methods of predator control, the several hundred pages of literature reviewed in preparing this talk suggest only positive environmental affects associated with either intensive clam or oyster culture."

Economic impacts

The current commercial harvest limit for littleneck clams in Kachemak Bay is 40,000 lbs. Local management has set the commercial harvest at 25,000 lbs having a market value at $2.50/lb or $62,500. Actual 1998 harvest was less than 20,000 lbs.

An aquatic farm can produce, with predator protection and seeding, about 10 times the biomass of clams as a natural population. By any definition, this level of production increase would be considered enhancing the clam population of the beach.

Aquatic farming in can produce an estimated conservative production of 12 harvestable clams per square foot per year. From a 10 acre plot, the annual harvest would be 435,000 lbs. worth approximately $1.1 million.

What is the market?

Homer

- Lands End during the summer buys 6,000 lbs and had indicated that they could sell more than 20,000 lbs if more clams were available.
- His Catch Seafood, Homer, Alaska indicated a sales potential of over 40,000 lbs. annually.

Anchorage

- Favco, Anchorage's largest seafood wholesaler, estimates the Anchorage market demand for littleneck clams at over 1,000,000 lbs. annually.

Western Region of U.S. (Aquaculture situation outlook, Western Regional Aquaculture Center)

- "In 1997, it is estimated that over 5.4 million pounds of clams were produced at an estimate of over $13.7 million." Farmers are converting oyster production into clam farms, and by 2002 production will increase to 7.7 million pounds

United States

- The long term trend (1988-1998) for clam landings showed an overall decrease, however, imports have increased.

Export market

- The long term trend of clam exports (1988-1998) have shown an increase of 196.16% from 661 metric tons to 1,958 metric tons.
- Recently, exports of clams have been somewhat variable depending on the economic circumstances in Asia. In 1998 exports rose 8% while in first half of 1999, exports declined by 15%. We do know, however, that water quality in Asia is a great concern, and shellfish grown in clean water will have an economic advantage.

Effect clam farming on other clam fisheries in Alaska

- There is no littleneck clam fishery outside of Kachemak Bay
- The Kachemak Bay clam commercial fishery is very limited
- In a hearing before the Alaska Legislature: House Resources Standing Committee Mr. Kevin Duffy, acting deputy director of the ADF&G Division of Commercial Fisheries Management and Development was asked by Representative Harris.

  Rep Harris: "Is there anything about this industry that has a negative effect on any other seafood industries that it works around or that it's processed around?"

  Kevin Duffy: "The clear answer to that is no."

Where Alaska's Aquatic Farm Dollars Go?

(as a percentage of gross annual revenue)

Local Economy (Prince of Wales Island)	53%
Region (Southeast, including POW)	74%
State Treasury (lease fees, taxes, licensing)	3.5%
Alaska	96.5%

Source: Based upon 2001 expenditures of Taylor Bay Shellfish Company oyster and clam farm located on Prince of Wales Island.

Economic Impact

$20,000 gross revenues per acre for Alaska oyster and clam farms

(Based upon performance of 6-acre S.E. and 1-acre Kachemak Bay farms over a five year period.)

At this rate, Alaska would require only 5,000 acres of coastline to create a $100 million industry!

Commercial Fishermen and Farming

- 16 Active farms in Kachemak Bay
- 12 farms operated by current or form commercial fishermen
  - 8 active

What the Qutekcak Shellfish Hatchery Needs to Succeed

- Bottom line: We need customers in the form of permitted farms!
- Enhancement opportunities for depleted stocks
- Technology does not pay the bills
- Supporting statutes and regulations

Florida Clam Farming

- Statewide in 1998
- 1,440 acres of farms
- 50 hatcheries
- 300 growers

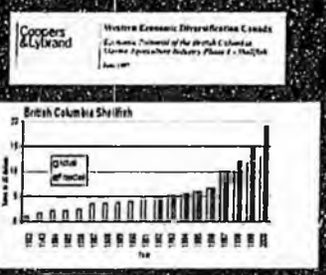
Cedar Key Florida

Partnerships That Work

Florida Clam Production

British Columbia

British Columbia's Shellfish Farming Initiative



Goal
$100 Million Dollar Industry
By 2006

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  - SE Alaska

Florida Clam Farming

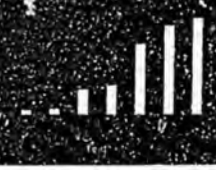
- Statewide in 1998
  - 1,440 acres of farms
  - 50 nurseries
  - 300 growers

Cedar Key Florida

- 40 million clams
- Average farmer
  - clears $30,000 annually
  - $3.5 million annually

Partnerships That Work to the local economy

Florida Clam Production



British Columbia

British Columbia Shellfish Farming Industry

Goal

$100 Million Dollar Industry

By 2006

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- Enhancement opportunities for depleted stocks
- Technology does not pay the bills
- Supporting statutes and regulations
  - (-141(d) 208)

Florida Clam Farming

Statewide in 1998

- 1,440 acres of farms
- 50 nurseries
- 300 growers

Cedar Key Florida

60 million clams

Average farms

Acres

$10,000 annual

2.5 million per year

Partnerships That Work to protect access

Florida Clam Production

British Columbia

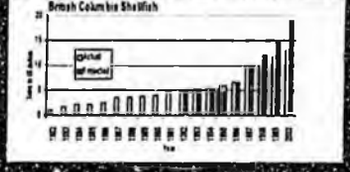
British Columbia's Shellfish Farming Initiative

Coopers & Lybrand

Western Economic Diversification Canada

Economic Potential of the British Columbia Marine Aquaculture Industry Phase I - Shellfish

June 1997



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Economic Impact
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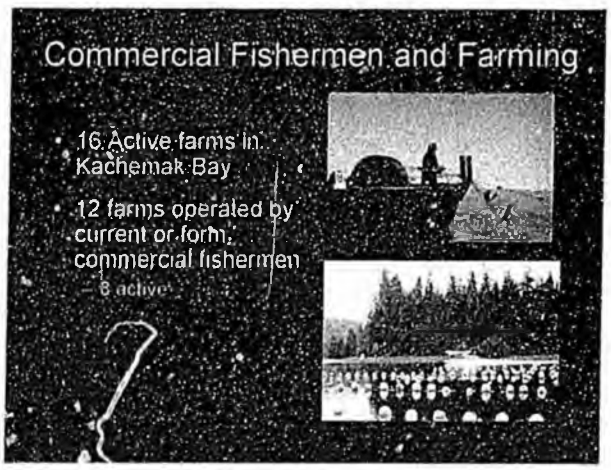
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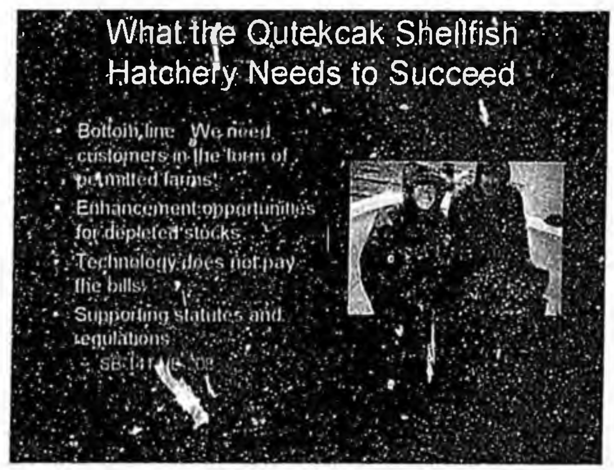
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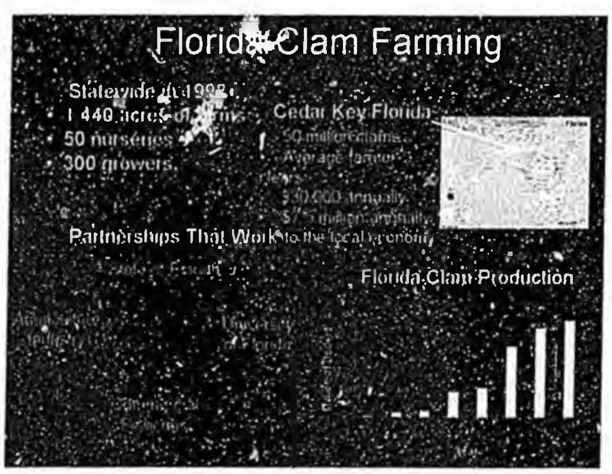
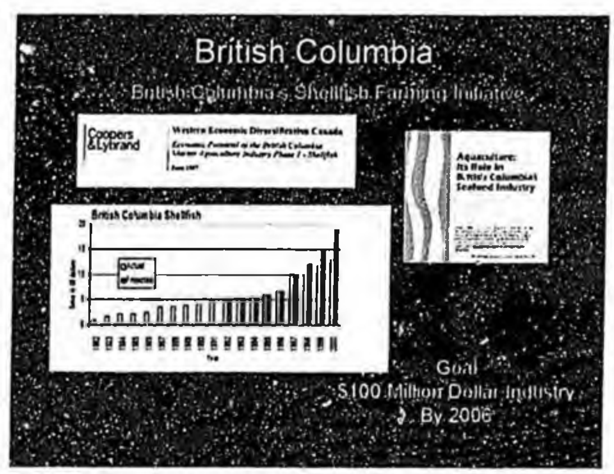

Florida Clam Farming
300 growers
Cedar Key Florida
Florida Clam Production


British Columbia
Coopers & Lybrand
Western Economic Diversification Canada
British Columbia Shellfish
Aquaculture: Its Role in British Columbia's Seafood Industry
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- Supporting statutes and regulations
  - SB 141/HB 208

Florida Clam Farming

Statewide in 1998
- 1,440 acres of farms
- 50 nurseries
- 300 growers

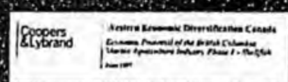
Cedar Key Florida

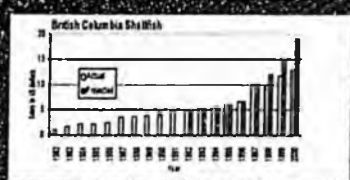
Partnerships That Work

Florida Clam Production

British Columbia

British Columbia's Shellfish Farming Initiative





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Cedar Key, Florida

Partnerships That Work

Florida Clam Production

British Columbia

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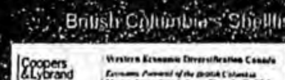

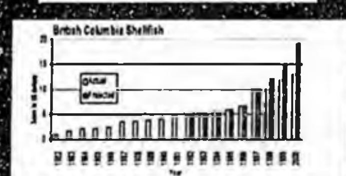

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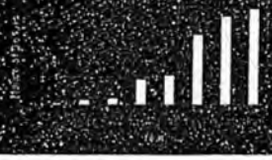
- 50 nurseries
- 300 growers

Cedar Key Florida

- 50 million clams
- 40 farmers

Partnerships That Work to the local economy

Florida Clam Production



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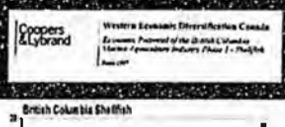

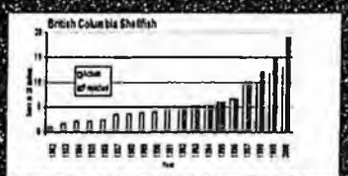

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  - SB 140 & HB 208

Florida Clam Farming

Statewide in 1998

- 1,440 acres of farms
- 50 nurseries
- 300 growers

Cedar Key Florida

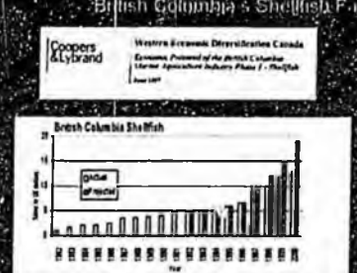
- 30 million clams
- Average farmer
  - clams
  - $40,000 annually
  - $1.5 million annually

Partnerships That Work to Increase Production

Florida Clam Production

British Columbia

British Columbia's Shellfish Farming Initiative



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Cedar Key Florida

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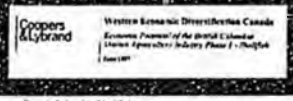
- Average farmer
- $30,000 annually

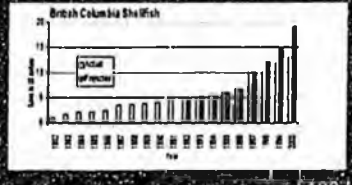
Partnerships That Work (state, federal, industry)

Florida Clam Production

British Columbia

British Columbia Shellfish Farming Initiative





Goal:
$100 Million Dollar Industry
By 2006

Where Alaska's Aquatic Farm Dollars Go?

(as a percentage of gross annual revenue)

- Local Economy (Prince of Wales Island) 53%
- Region (Southeast, including POW) 74%
- State Treasury (lease fees, taxes, licensing) 3.5%
- Alaska 96.5%

Economic Impact

$20,000 gross revenues per acre for Alaska oyster and clam farms

[Based upon performance of 6-acre S.E. and 1-acre Kachemak Bay farms over a five-year period.]

At this rate, Alaska would require only 5,000 acres of coastline to create a $100 million industry!

Commercial Fishermen and Farming

- 15 Active farms in Kachemak Bay
- 12 farms operated by current or form commercial fishermen
  - 8 active

What the Qutekcak Shellfish Hatchery Needs to Succeed

- Bottom line: We need customers in the form of permitted farms
- Enhancement opportunities for depleted stocks
- Technology does not pay the bills
- Supporting statutes and regulations

Florida Clam Farming

- Statewide in 1998
- 1,440 acres of farms
- 50 nurseries
- 300 growers

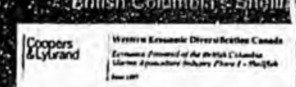
Cedar Key Florida

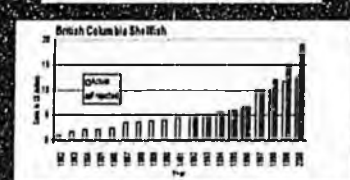
Partnerships That Work

Florida Clam Production

British Columbia

British Columbia's Shellfish Farming Initiative





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State Treasury (lease fees, taxes, licensing)	3.5%
Alaska	96.5%

Source: Based upon 2011 expenditures of Taylor Shellfish Company on oysters and clams they cultivate on Prince of Wales Island.

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(Based upon performance of 6-acre S.E. and 1-acre Kachemak Bay farms over a five-year period.)

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Florida Clam Farming

- Statewide in 1998
  - 1,440 acres of farms
  - 50 hatcheries
  - 300 growers
- Partnerships That Work

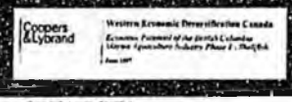
Cedar Key Florida

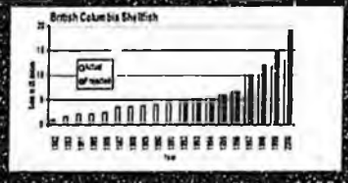
- 50 million clams
- Average farmer
  - clams
  - $10,000 annually
  - 67 families annually
- to the local economy

Florida Clam Production

British Columbia

British Columbia's Shellfish Farming Initiative





Goal:
$100 Million Dollar Industry
By 2006

HB

236

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: HB 236
(H) Publish Date: 4/21/01

Revision Date/Time (Note if correction): 04/18/2001 9:30a.m.
Dept. Affected: DCED
Title: AIDEA Bonds For Gas Public Utilties
BRU: AIDEA
Component: AIDEA
Sponsor: House Finance
Requester: House Finance
Component Number: 1234

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )	0.0	0.0	0.0	0.0	0.0	0.0

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
1156 RSS						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2001) cost:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

The bill provides $76 million in bonding authorization to finance the acquisition, design, construction, inventory and operation of a natural gas, propane air, or manufactured gas public utility in Southeast Alaska and several Gulf of Alaska communities. Prior to issuing bonds, AIDEA will be required to conduct a feasibility, market and risk analysis of the project as outlined in AS 44.88.095(c). Bonds sold to finance the project will have no fiscal impact on the General Fund.

Prepared by: Robert G. Poe, Jr., Executive Director
Phone 907-269-3000
Division AIDEA
Date/Time 04/18/2001 9:30a.m.
Approved by: Commissioner Deborah B. Sedwick
Date 4/18/2001
Agency Department of Community & Economic Development

For distribution information, call the Governor's Legislative Office

(Rev 11/2000 OMB)

22-LS0865\C
Cook
4/27/01

SENATE CS FOR HOUSE BILL NO. 236(RES)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SECOND LEGISLATURE - FIRST SESSION

BY THE SENATE RESOURCES COMMITTEE

Offered:
Referred:

Sponsor(s): HOUSE FINANCE COMMITTEE

A BILL

FOR AN ACT ENTITLED

"An Act directing the Alaska Industrial Development and Export Authority to conduct a study of the feasibility of constructing and operating certain natural gas, propane air, or manufactured gas public utility facilities; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

PUBLIC UTILITY FEASIBILITY STUDY. (a) The Alaska Industrial Development and Export Authority shall conduct a study of the feasibility of constructing and operating facilities to provide natural gas, propane air, or manufactured gas public utility service under Regulatory Commission of Alaska Certificate of Public Convenience and Necessity No. 572 to the unified municipalities of Juneau and Sitka, the boroughs of Haines, Ketchikan, Kodiak, and Yakutat, the cities of Angoon, Cordova, Craig, Kake, Klawock, Petersburg, Skagway, Valdez, and Wrangell, and the communities of Klukwan and Metlakatla.

(b) A report describing the scope of the study and setting out conclusions and

recommendations shall be delivered to the legislature on or before January 15, 2002.

* **Sec. 2.** This Act takes effect immediately under AS 01.10.070(c).

SEAGA Gas Project

BRINGING UTILITY GAS SERVICE TO SOUTHEAST AND GULF OF ALASKA COMMUNITIES

BASED ON THE PRODUCTION, TRANSPORTATION AND STORAGE OF LIQUID NATURAL GAS (LNG), LIQUID PETROLEUM GAS (LPG), AND MANUFACTURED GASES

Alaska Intrastate Gas Company

Major Business Interests

- APUC APPROVED GAS UTILITY FOR 17 ALASKAN COMMUNITIES
- GAS UTILITY MARKETING AND SERVICES
- LONG TERM OPERATION AND MAINTENANCE OF LOCAL GAS DISTRIBUTION SYSTEMS
- CONTRACT FOR GAS SUPPLIES AND MARINE TRANSPORTATION TO COMMUNITIES

Alaska Intrastate Gas Company

Service Area Communities

Gulf of Alaska – 4

- Cordova, Kodiak, Valdez, Yakutat

Southeast Alaska – 13

- Angoon, Craig, Haines, Juneau, Kake, Ketchikan, Klawock, Klukwan, Metlakatla, Petersburg, Sitka, Skagway, Wrangell

Expansion Communities – 5

- Gustavds, Hoonah, Hydaburg, Pelican, Thorne Bay

Alaska Intrastate Gas Company

Community Development Potential

LARGE COMMUNITIES
- JUNEAU (30,000 pop.)
- KETCHIKAN (14,000 pop.)
- SITKA (9,000 pop.)
- KODIAK (12,000 pop.)

5 YR PROJECTED RESIDENTIAL LOAD OF 5 BCF

3.7+ BCF INDUSTRIAL LOAD

Alaska Interstate Gas Company

Community Development Potential

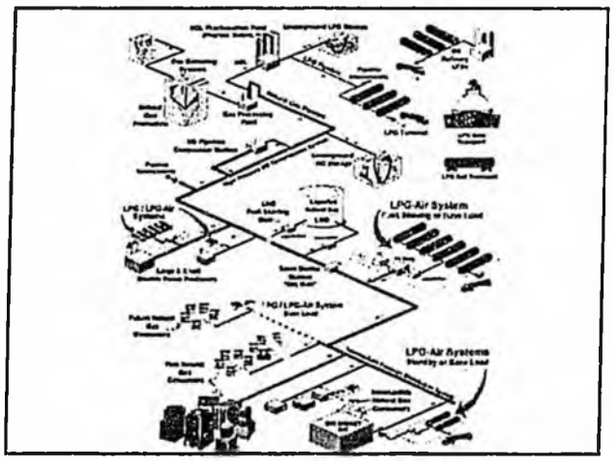
MEDIUM COMMUNITIES
- CORDOVA
- CRAIG
- KLAWOCK
- PETERSBURG
- VALDEZ
- WRANGELL

5 YR PROJECTED LOAD OF 3 BCF

SMALL COMMUNITIES
- ANGOON
- HAINES
- KAKE
- KLUKWAN
- METLAKATLA
- SKAGWAY
- YAKUTAT

5 YR PROJECTED LOAD OF 1.2 BCF

Alaska Interstate Gas Company



Major Project Components

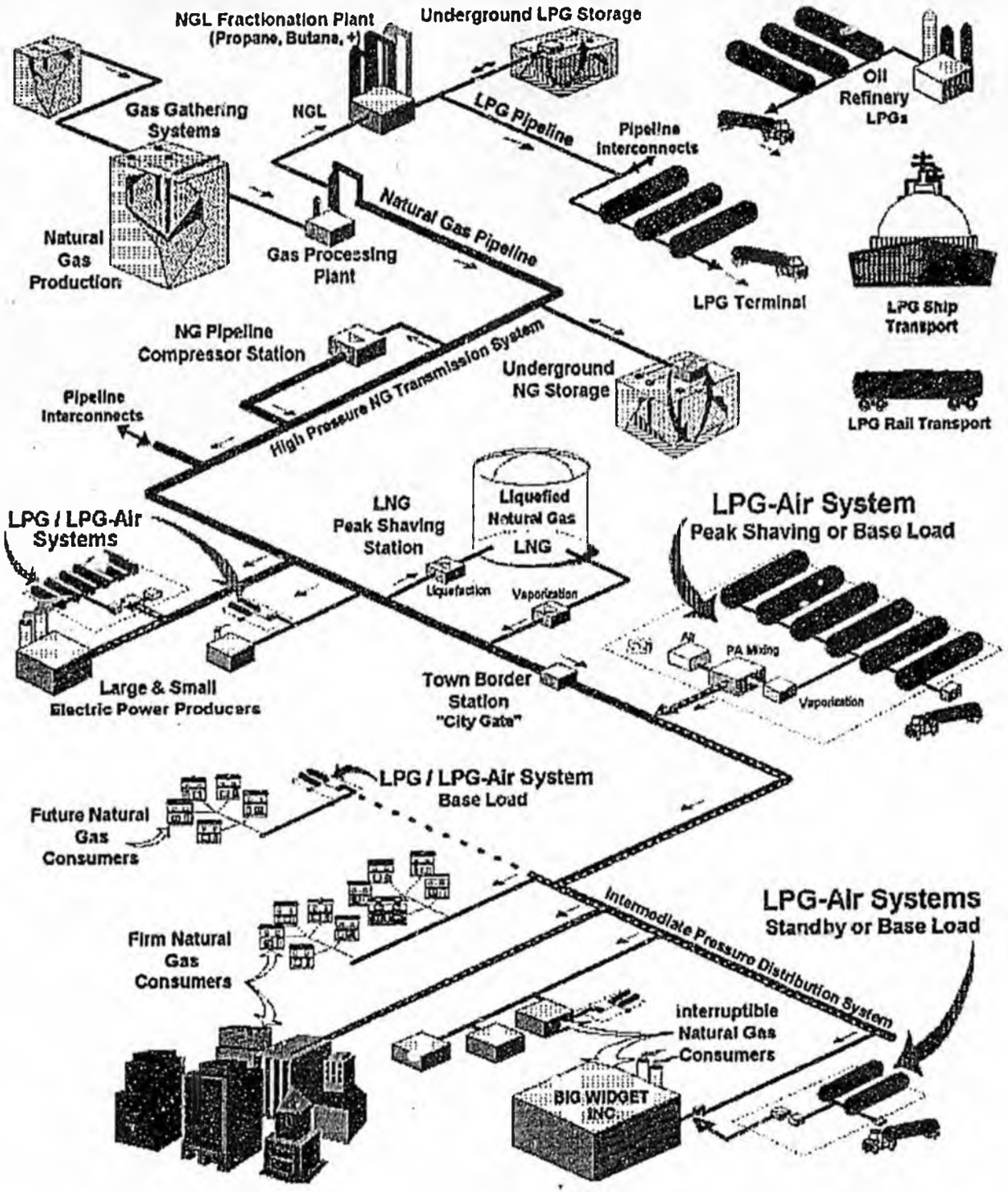
Acquisition of gas supplies

Transportation of gas to tidewater
- Pipeline
- Railcar

Marine transportation of gas to communities
- Bulk barge
- Aquatrain

Storage and vaporization of gas in communities

Distribution and sale of gas in communities


NGL Fractionation Plant
(Propane, Butane, +)
Underground LPG Storage
Oil
Refinery
LPGs
Gas Gathering
Systems
NGL
LPG Pipeline
Pipeline
Interconnects
Natural
Gas
Production
Gas Processing
Plant
Natural Gas Pipeline
LPG Terminal
LPG Ship
Transport
NG Pipeline
Compressor Station
Underground
NG Storage
Pipeline
Interconnects
High Pressure NG Transmission System
LPG Rail Transport
LNG
Peak Shaving
Station
Liquefied
Natural Gas
LNG
LPG-Air System
Peak Shaving or Base Load
LPG / LPG-Air
Systems
Liquefaction
Vaporization
Air
PA Mixing
Vaporization
Large & Small
Electric Power Producers
Town Border
Station
"City Gate"
LPG / LPG-Air System
Base Load
Future Natural
Gas
Consumers
Intermediate Pressure Distribution System
LPG-Air Systems
Standby or Base Load
Firm Natural
Gas
Consumers
Interruptible
Natural Gas
Consumers
BIG WIDGET
INC.

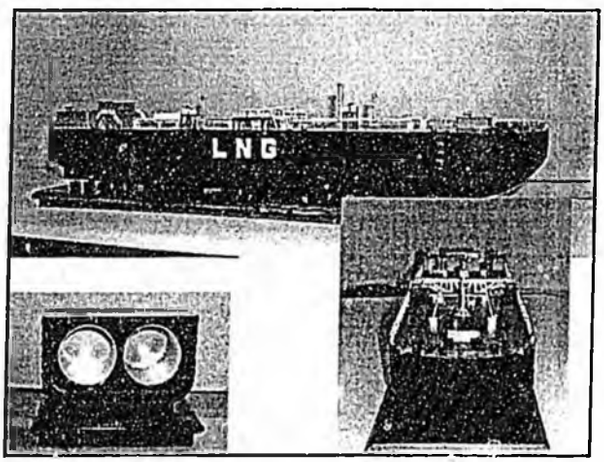
Canadian Infrastructure

Marine Transportation

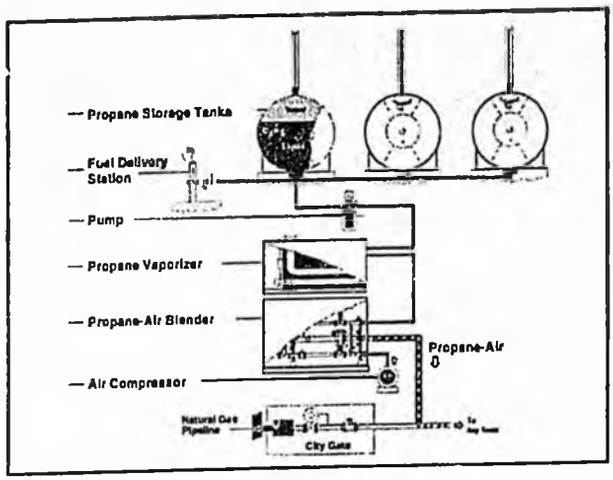
LNG/LPG BARGE
- 300' x 63' x 19'
- 11' DRAFT
- PUSH-TUG CONFIGURATION
- PRESSURIZED STORAGE TANKS
- NOMINAL CAPACITY 1,000,000 GALLONS

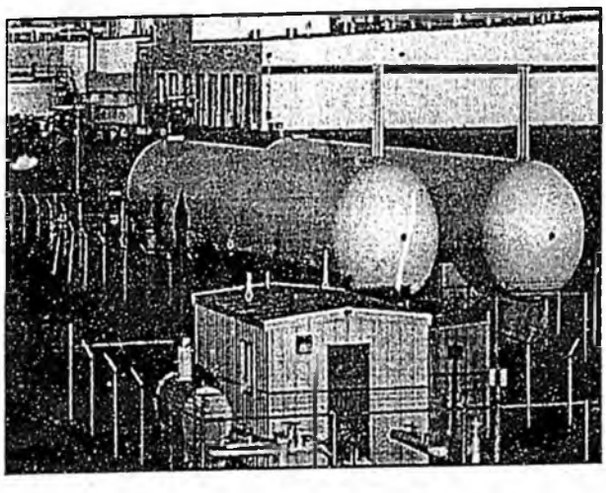
RAILCAR AQUATRAIN BARGE
- EXISTING 180,000 GALLON BARGE
- NEW AQUATRAIN BARGE 500,000 GALLONS

SMALL BULK GAS CARRIER
- 500,000 TO 2,000,000 GALLON CAPACITY

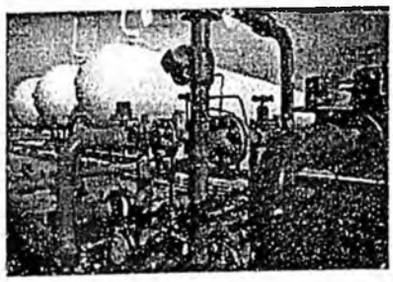


SMALL BULK GAS CARRIERS



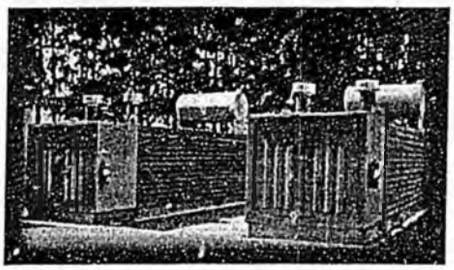


Sendout Piping Configuration



55,000 Gallon Storage Tank and Sendout Facility

Small Gas Sendout System



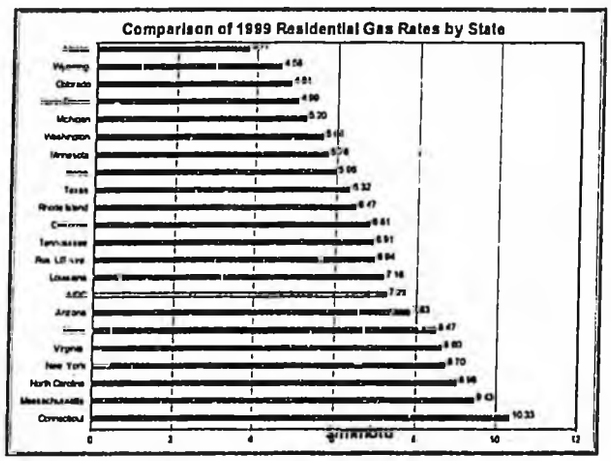
Cost Of Service

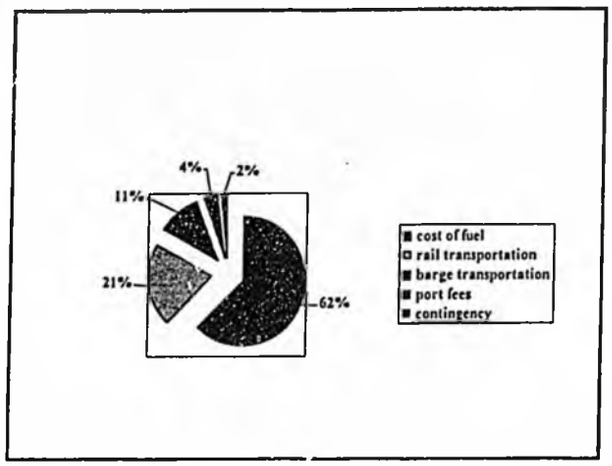
Residential
- $7.25/MCF cost of gas
- $7.95/mo service charge

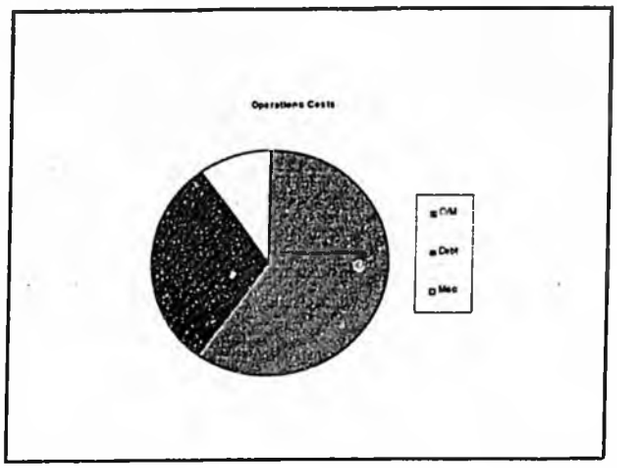
Small commercial
- $6.89/MCF cost of gas
- $9.95/mo service charge

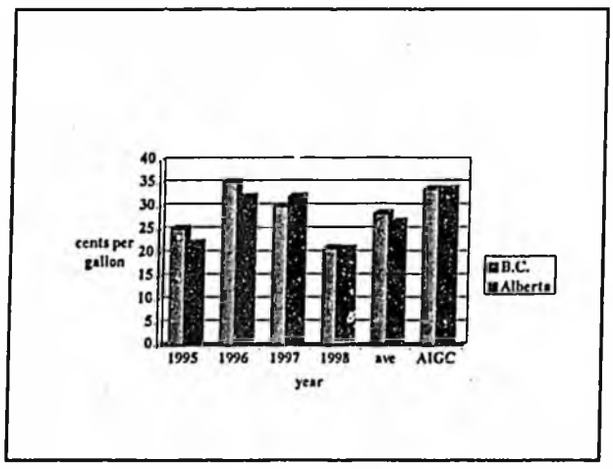
Large commercial
- $8.53/MCF cost of gas
- $40.00/mo service charge

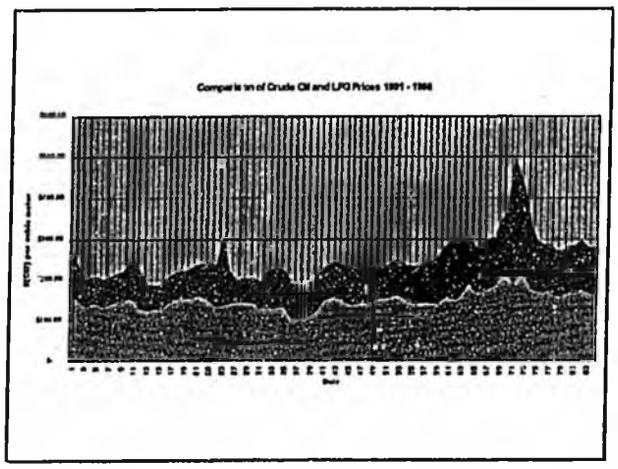
Alaska Interstate Gas Company




4%
2%
11%
21%
62%
cost of fuel
rail transportation
barge transportation
port fees
contingency


Operations Costs

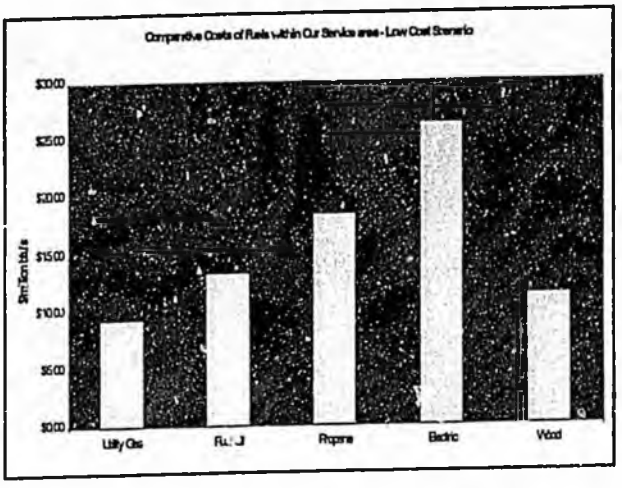

40
35
30
25
20
15
10
5
0
cents per gallon
1995
1996
1997
1998
ave
AIGC
year
B.C.
Alberta

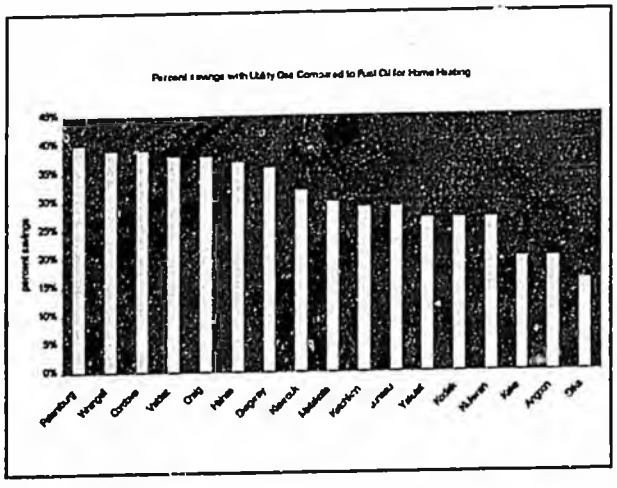

Comparison of Crude Oil and LPG Prices 1991 - 1998

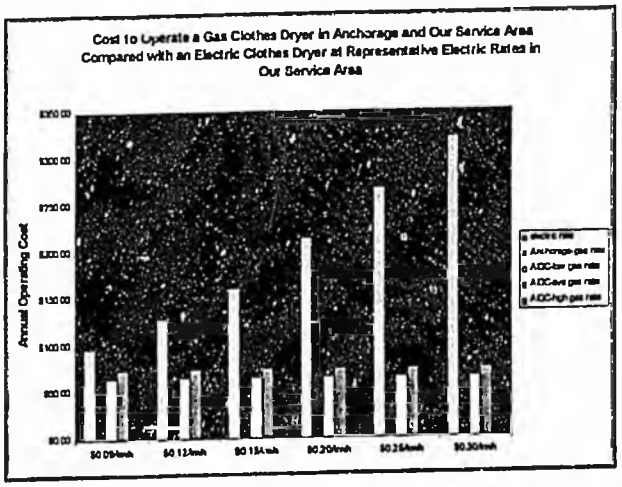
Community Energy Survey Results

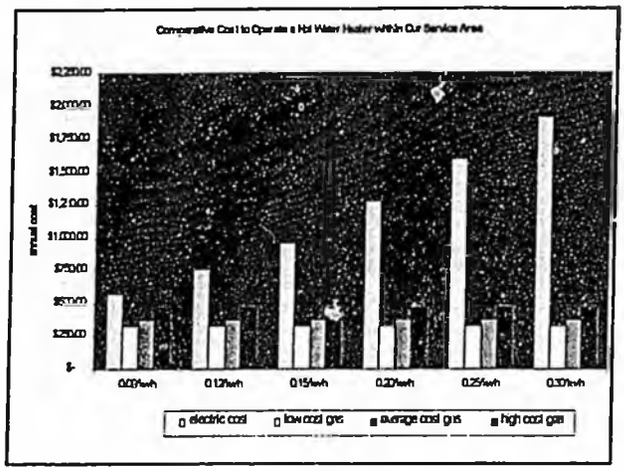
- Angoon, Craig, Hoonah, Hydaburg, Kake, Klawock, Yakutat
- Average annual energy consumption is 165 mmbtu
- Average fuel oil cost in 1999 was $1.74 per gallon
- Average annual cost for fuel oil was $2,685

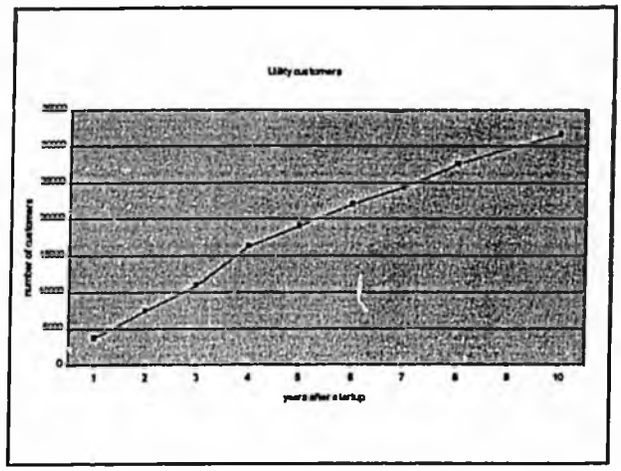
Alaska Interstate Gas Company







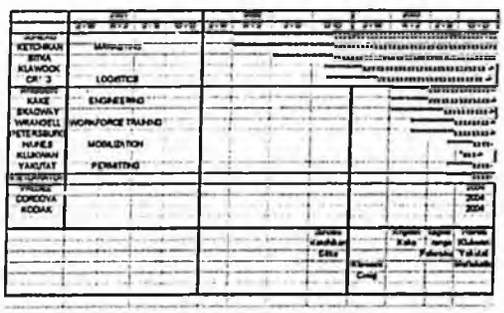




Marketing Incentives

- Hookup fee waiver
- Appliance rebates and bonuses
- Financing/refinancing assistance
- Grant/loan assistance
- Credit card financing assistance
- Leasing/maintenance contracts
- Special purchase discounts
- Vendor promotions
- Installation/conversion discounts

Service Schedule



EMPLOYMENT POTENTIAL

- 200+ construction jobs
- 15+ permanent full-time employees in Juneau
- 35+ permanent full-time employees in AIGC
- 50+ permanent and part-time secondary jobs related to gas utility service

Alaska Interstate Gas Company

PHASE I
SEAGA PROJECT FUNDING

Existing equity	$ 3,000,000
Equity investment	$ 11,500,000
Term loan principal	$ 45,500,000
Gas sales revenues	$ 13,000,000
Total funding	$ 70,000,000

Alaska Interstate Gas Company

PHASE I
PROJECT COST SUMMARY

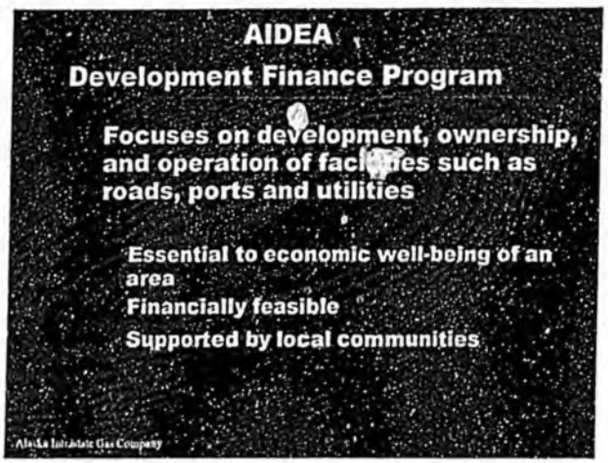
Utility Plant	$ 45,500,000
AFUDC debt	$ 7,800,000
Interim Service	$ 1,000,000
Financing costs	$ 3,400,000
Contingency	$ 3,300,000
Working Capital	$ 2,500,000
Operating Reserve	$ 6,500,000
Total uses of funds	$ 70,000,000

Alaska Interstate Gas Company

HOUSE BILL 239

- Provides legislative approval for a utility project over $10,000,000 in cost as required by AS 44.88.095(g)
- Consider SEAGA Gas Project under AIDEA's Development Finance Program
- Places a bond limit of $76,000,000 on the Project
- Provides a sunset date of July 1, 2006 for issuance of bonds

Alaska Interstate Gas Company


AIDEA
Development Finance Program
Focuses on development, ownership, and operation of facilities such as roads, ports and utilities
Essential to economic well-being of an area
Financially feasible
Supported by local communities
Alaska Intrastate Gas Company


SEAGA Gas Project
Project Team in Place to begin Building out the Project
Pending legislation to authorize participation of AIDEA in the Project
Due Diligence and economic Feasibility Review by AIDEA
Initiate Community Work in Fall or Winter 2001
Final Tariff Approval by RCA 6 Months before startup of Service
Alaska Intrastate Gas Company

Alaska Intrastate Gas Company
Business Plan 2001

Alaska Intrastate Gas Co.
615 East 82nd Avenue, Suite 300
Anchorage, Alaska 99518
Telephone 907-272-0555
Fax. 907-272-0556

Alaska Public Utilities Commission

Certificate

of

Public Convenience and Necessity

No. 572

Having found that the grantee of this certificate is fit, willing, and able to provide the utility services applied for and that such services are required for the convenience and necessity of the public, the Alaska Public Utilities Commission, pursuant to the authority vested in it by AS 42.05, hereby issues this certificate of Public Convenience and Necessity to

ALASKA INTRASTATE GAS COMPANY

authorizing it to operate a public utility, as defined by AS 42.05.990(4) (D), for the purpose of furnishing

"NATURAL GAS, PROPANE-AIR, OR MANUFACTURED GAS PUBLIC UTILITY SERVICE"

This Certificate is issued und r, and subject to, the provisions of AS 42.05 and all rules, regulations, and orders from time to time promulgated by the Commission governing the rates, charges, services, facilities, and practices of utility operations of the kind authorized herein.

The specific nature, scope, terms, conditions, and limitations of the authority granted by this Certificate, as amended to date, are set forth in the appendix hereto and in the following order(s) of the Commission which, by this reference, are incorporated in and made a part hereof as though fully set forth herein.

Docket No.	Date of Order
U-97-46(6)	December 31,1998

Conditions, chronology, and service area description shown on the attached Appendix A and in Order U-97-46(6)

IN WITNESS THEREOF, the undersigned members of the Commission have executed this Certificate of Public Convenience and Necessity at Anchorage, Alaska on this 30th day of June 1999

Alaska Public Utilities Commission

(CHAIRMAN)

(COMMISSIONER)

(COMMISSIONER)

(COMMISSIONER)

CONFIDENTIAL

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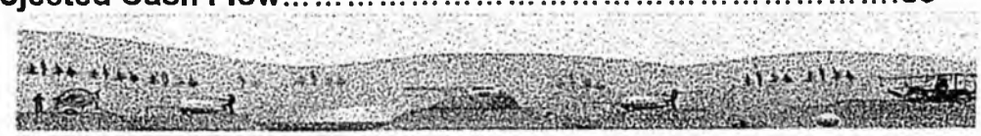


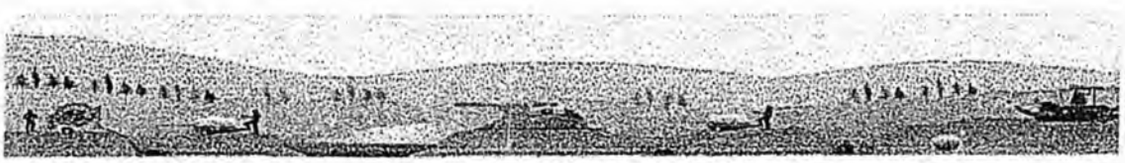
1.0 Executive Summary

The SEAGA Gas Project is a venture committed to bringing all the benefits of gas utility service to the peoples, businesses and communities of Southeast Alaska and the Gulf of Alaska. Alaska Intrastate Gas Company (AIGCO) was incorporated in the State of Alaska in 1986, and began development work on the SEAGA Gas Project more than 8 years ago. The company began the process to obtain Alaska Public Utilities Commission certification in 1995. On December 31, 1998 AIGCO was granted Certificates of Public Convenience and Necessity (CC&N) by the Alaska Public Utilities Commission for 17 communities in the proposed service area. The communities named in the CC&N's include Juneau (State capitol), Ketchikan, Sitka, Angoon, Cordova, Craig, Haines, Kake, Klawock, Klukwan, Kodiak, Metlakatla, Petersburg, Skagway, Valdez, Wrangell and Yakutat. These communities extend along the panhandle of Alaska and the Gulf of Alaska for a distance of more than 1,100 miles. Thirteen of these communities lie in the Alexander Island Archipelago of Southeast Alaska, which covers a portion of the Panhandle that is 400 miles long and 120 miles wide. The 17 communities have a combined population in excess of 85,000, and more than 29,000 small, large and industrial businesses. Certificates were issued to AIGCO to provide natural gas, propane-air, or manufactured gas public utility service to these communities on June 30, 1999.

Current construction plans for the SEAGA Gas Project will be bring utility gas service to all 17 communities within 5 years, and will be fully developed within a ten-year period. During the first year of construction utility service will be initiated in Angoon, Craig, Kake and Klawock. In the second construction season service will be initiated in Haines, Ketchikan, Petersburg, Sitka, Skagway, Wrangell and Yakutat. In the third construction season utility service will be initiated in Cordova, Juneau, Kodiak, Klukwan, Metlakatla and Valdez. Local distribution centers will be developed in each community, which consists of all offloading, storage, pipeline and distribution infrastructure necessary for operating the utility. Upon completion of the Project, gas utility service will be provided to more than 26,000 customers, and available to more than 15% of the State's population, who presently lack gas utility service.

Consumers would see immediate economic benefits from the availability of clean, efficient, and environmentally friendly utility gas service. Replacing fuel oil with utility gas is expected to generate cost savings ranging from 15 - 40% to consumers; while switching from bottled propane or electric to utility gas service will generate cost savings in excess of 60%.

The Project is international in scope in that the source of utility gas feedstocks includes the gas fields of northwestern British Columbia and north central



Alberta in Canada, and a marine shipping port located at Prince Rupert, BC, approximately 90 miles south of the community of Ketchikan. Future plans also provide for the construction of a liquid natural gas (LNG) manufacturing plant in Prince Rupert, BC to supply LNG to Southeast Alaska.

The Project is based on the movement of natural and petroleum gases in their liquid forms from the port of Prince Rupert, BC, to each of the service communities by way of ocean barges. Initial service will rely upon liquefied petroleum gases (LPG) transported via hydro train rail barges and bulk LPG barges. Later, when service includes LNG, the LNG barges will be designed, constructed, financed and operated by a world leader in LNG transportation, Argent Marine Operations, Inc. By utilizing this format, gas utility service can be provided to the communities in a cost competitive manner that will also provide the energy resource for additional business development.

Utility service will initially utilize predominantly LPG gases in each community. Once the distribution systems and customer base have been developed to a sufficient size to support construction and operation of an LNG peak-shaving plant, then service will be switched over to a blend of LPG and LNG-based natural gas feedstocks. AIGC's customers will include all residential, small commercial, large commercial and industrial users throughout the 17-community service area. Annual service loads are expected to exceed 12 billion cubic feet in less than 10 years. In addition to these residential and commercial gas loads, AIGC has identified more than 10 billion cubic feet associated with industrial, mining and electrical industries in the service area that could be placed under contract once gas utility service is introduced into these communities.

The Project will generate employment for over 200 workers during the construction period, and is expected to create more than 50 direct, permanent and part-time jobs in the 17-community service area.

The overall cost of the SEAGA Gas Project is currently in the $200 million range, including the LNG peak-shaving facility component, expended over a period of 10 years as each component of the project is fully implemented. Annual revenues will exceed $117 million within 5 years of operation.

1.1 Objectives

- To develop a complete Project plan with the major financial partners by March 2001.
- To complete the AIDEA financial review of the Project by June 2001.
- To begin construction of the Local Distribution Centers (LDC's) by August 2001.

- To begin gas utility service to communities by November 2001.
- To meet the sales objectives set out in the financial plan contained herein by FYE 2003.
- To begin planning and engineering for the LNG plant and LNG barges by FYE 2005.
- To complete construction within all communities of the SEAGA Gas Project by FYE 2009
- To encourage additional economic development in the SEAGA Project service area.

1.2 Mission

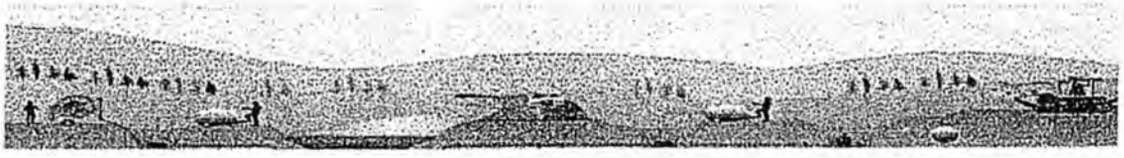
The mission of Alaska Intrastate Gas Company (AIGC) is to bring all the benefits of gas utility service to the peoples, businesses, industries and communities throughout Alaska that do not currently have access to gas utility energy resources. The SEAGA Gas Project specifically focuses on establishing gas utility services in the communities of the Southeast and the Gulf of Alaska regions of the State.

1.3 Keys to Success

- Provide a consistent and high quality level of service to each of the community sectors we serve in each community.
- Provide an environmentally superior energy resource, and the benefits of gas technology to each of the segments we serve in each community.
- Reduce the overall cost of energy resources to each of the segments we serve in each community.
- Attain the penetration levels of service noted in the pro forma business plan in each community.
- Manage costs from the purchase of feedstocks at their sources through the production process and delivery to the consumer.
- Maximize both sources of feedstocks and community feed stock storage capacities to maintain favorable contract pricing for year-round gas supplies.

2.0 Company Summary

Francis L. Avezac, the majority stockholder and Chairman of the Board, founded AIGC as an Alaskan Corporation in 1986. The company's name was changed to its current name in 1992 with the vision of bringing all of the benefits of gas utility service to Southeast Alaska and other remote locations throughout the State.



Two Alaskan investors currently hold the stock of the company. Mr. Tom LeNeau is the President of the Corporation; Ms. B. Juline Magden, C.P.A., is the Corporate Treasurer and Vice President of Finance; Mr. Nick Kendle is Senior Vice President of Marketing, and Mr. James Krusemark is the Manager of Southeast Operations.

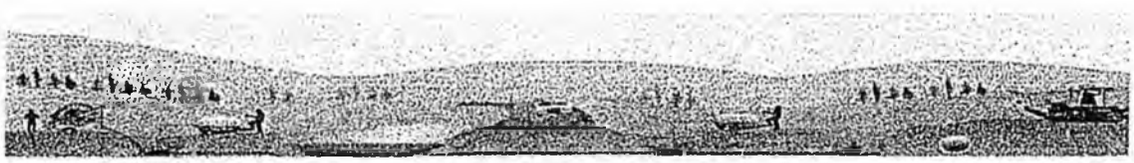
AIGC's customers will include all residential homeowners, small and large commercial businesses, industrial operations, and electrical generation entities throughout the 17-community service area. There are over 32,000 households representing a population in excess of 85,000 people and 29,000 businesses in the service area.

AIGC was incorporated in the State of Alaska in 1986. The company began the process to obtain Alaska Public Utilities Commission (APUC) certification in 1995. This effort was rewarded on December 31, 1998 when the APUC Commissioners granted AIGC the exclusive rights to provide gas utility service to 17 communities throughout the Southeast and Gulf of Alaska regions of the State. The Certificate of Public Convenience and Necessity to provide natural gas, propane-air, or manufactured gas utility service to 17 communities was issued to AIGC on June 30, 1999. The communities named in the CC&N's include Juneau, Ketchikan, Sitka, Angoon, Cordova, Craig, Haines, Kake, Klawock, Klukwan, Kodiak, Metlakatla, Petersburg, Skagway, Valdez, Wrangell and Yakutat.

2.1 Start-up Summary

AIGC is focused on bringing all the benefits of natural gas utility service to the communities of the Alaska Panhandle and Gulf of Alaska regions. The Project entails the development and implementation of several key components. These include the purchase of gas feedstocks from sources in British Columbia and Alberta, Canada; the bulk transportation of liquefied gas feedstocks from Prince Rupert, BC to each community; the construction and operation of an LNG plant proposed for Prince Rupert, BC; the construction and operation of a barge(s) for transport of the LNG from the LNG plant to the communities in our service area; and the construction and operation of LDC's in each of our 17 communities.

AIGC originally filed with the APUC on August 8, 1995 to provide gas utility service to 52 communities that were considered viable for natural gas service based on the transportation of LNG via highway, railroad and marine barge. Both Canadian and Alaskan natural gas resources were included in the Project, with LNG production facilities located in both Prince Rupert, BC. and Whittier, Alaska.



At the request of the APUC the Project was simplified to rely on a single mode of transportation for the initial project development; with other communities and transportation modes to be added in the future. Consequently, in May of 1996, AIGC amended the application to provide gas utility service to 19 coastal communities, all of which could be provided with natural gas based solely on barge transportation. It was at this point in time the Project became known as the SEAGA Gas Project. AIGC successfully perfected its application covering these 19 communities.

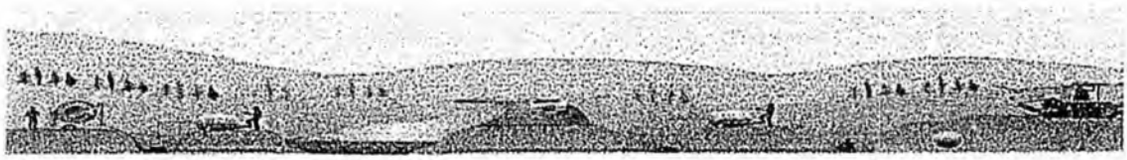
The APUC proceeded to its second public notification for the amended Project. As a result, there were competing applications filed for two of the communities. In order to ensure the maximum number of communities would realize the benefits of gas utility service, AIGC withdrew its claim on the communities of Seward and Homer, and concentrated its efforts on the remaining 17 communities. The APUC granted its approval for the redefined service area and established a new docket for AIGC. They also established that AIGC would have until May 1997 to re-file its application materials in the new docket. The APUC also determined that no new public notice period was necessary and that no competing applications for the newly defined, 17-community service area would be accepted.

AIGC immediately put together a new plan to provide gas utility service to these 17 communities. On April 8, 1998 AIGC made a public presentation to the APUC Commissioners and Staff. Based on that presentation, Staff prepared a list of nine specific areas they felt needed additional clarification or information. On August 31, 1998, AIGC filed its response to the items as noted by Staff. This filing included the use of LPG feedstocks as fuels in our utility service. On December 31, 1998, the APUC Commissioners granted AIGC the exclusive rights to provide gas utility service to the 17 communities in our filing. AIGC received the "parchment" certificate to provide gas utility service to these 17 communities on June 30,1999, one of the last actions of the APUC. On July 1, 1999 a new law took effect that reorganized the APUC into the Regulatory Commission of Alaska (RCA).

To date AIGC has expended considerable man-hours and financial expenses to move the project to this point. We have successfully moved the Project through the APUC review and obtained CC&N's for 17 communities. That effort has extended over a period of more than 9 years and resulted in capital expenses in excess of $2.5 million.

2.2 Company Locations and Facilities

The company's headquarters are currently located in leased office space in the



south side business district of Anchorage, Alaska. As the Project goes forward, it is anticipated additional office space will be required to house the senior management team, the engineering staff, the permitting staff and the operations management team. We are currently negotiating for class A space in the downtown business district of Anchorage which will place us near the RCA offices, near our corporate attorney's offices and in close proximity to the other major players in the oil and gas business in Alaska.

We will also set up marketing/operations offices in each of the communities we serve. It is anticipated these will initially be small storefront and mall locations. They will primarily focus on marketing the new services we offer to the community. Eventually, these marketing activities will co-locate with the operations facility and become part of the infrastructure we place at the plant site in each locale.

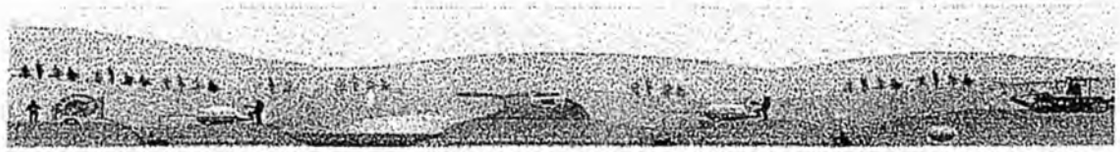
We also plan to open a regional operations center in the city of Juneau, the state capitol, to house our operations support management and our marketing teams.

3.0 Services

AIGC has been established as a gas utility and will offer gas utility sales and services to residents, businesses and industries within our defined service area. In addition to basic gas service, we will offer a variety of purchase and financing plans to our customers for appliances that will be hooked up to the system, assistance in applying for State/federal energy loans, and assistance in securing manufacturer and vendor promotional programs for conversion to gas service.

AIGC will offer gas utility service to its defined service market through a standard series of steel and plastic pipelines that will carry product to the meter at the specific building or site that the customer defines in its sign-up agreement. All pipelines will be buried within the public streets and utility rights-of-ways. Some of the gas lines may also be armored to protect them from damage. The present design includes fiber optic cables placed concurrent with gas pipelines that will run to each customer. In the business sections of the larger communities the design also includes additional vacant conduit that can support future infrastructure needs. Our preliminary pipeline distribution systems for each community were designed by engineers with more than 20 years of experience in new pipeline design and installation in a variety of small and large communities throughout the western US.

AIGC will assist the homeowner and small business owner in contracting with local, qualified contractors who will complete all private use permitting and installation in each community. AIGC will also provide local training programs



in these areas for local vendors and contractors to ensure that qualified personnel are available from these contractors in each community to provide this service.

3.1 Service Descriptions

AIGC is introducing a new energy resource, utility gas, to the people, businesses and industries of the Southeast and Gulf of Alaska regions of the State. These regions are currently served by electrical power, fuel oil, bottled propane, and wood. Gas utility service has significant advantages over all the other energy sources mentioned. These include:

- Convenient, on demand energy source
- Environmentally friendly, non-polluting energy source
- Highly efficient fuel with technically advanced product applications
- Widely regarded as a safe energy source
- The preferred energy source of choice when available
- Presents significant cost savings to the consumer over the other sources of energy now available
- Provides enhanced economic development opportunities, included reduced electrical rates

3.2 Competitive Comparisons

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Considerable research has been completed regarding the comparable value of gas utility service to the alternative energy sources noted. The fairest basis for comparison has been determined to be on a BTU basis. For example, 1,000 standard cubic feet (mscf) of natural gas produces 1 million BTU's of energy. Our proposed cost to the residential consumer for this measure of product is $8.90. To produce the same level of energy from bottled propane would require 10.917 gallons of fuel. The cost of propane varies in each community, but typically ranges from $1.68 to $2.65 per gallon. The equivalent cost for 1 million BTU's is $18.40 to $28.90. It is important to note that the bottled propane prices in Southeast Alaska did not reflect the drop in crude oil prices of last winter, or the low wholesale prices in the marketplace, but remained relatively constant throughout the past two years. The most recent prices for bottled propane range from approximately $2.00 to over $3.00 per gallon.

To produce 1 million BTU's of energy from #2 fuel oil would take 7.194 gallons of fuel. Typical residential rates in the service area range from $1.40 to $1.79 per gallon, and have recently risen to more than $2.00 per gallon even in the larger communities in Southeast Alaska. For the past 5 years fuel oil prices have consistently averaged more than $1.00 per gallon to small fuel purchasers (less than 1,000 gallons per delivery) and homeowners. Fuel oil prices are also

typically lower in the summer and higher in the winter when peak use occurs, which results in higher average annual fuel costs to the homeowner than suggested by fuel prices alone. At a cost of $1.74 per gallon the equivalent cost for 1 million BTU's is $16.27. It is important to note that fuel oil only briefly dropped to less than $1.00 per gallon in the larger communities during the last part of 1998. They rapidly rose to more than $1.00 per gallon by the spring of 1999 when world oil prices started climbing from record lows. The low prices experienced in the winter of 1999 were the lowest the region has seen in recent memory, and are not expected again in the foreseeable future.

To produce 1 million BTU's of energy from electricity takes 293.083 kWh. The current price of this energy source is approximately $0.09 per kWh in the larger communities, but ranges up to $0.339 per kWh in the smaller ones. At $0.09 per kWh the equivalent energy cost for 1 million BTU's is $26.38, while in the smaller communities it can range as high as an astounding $99.35.

As one can see from the summary figure 3.1, the opportunity clearly exists to enter the market and sell a high quality product at a competitive price. Our proposed rates are also comparable to rates in many other parts of the country, where natural gas is transported over long distances (figure 3.2). As we will discuss later in this business plan, this competitive advantage is the basis for our penetration levels in each of the service communities.

3.3 Sourcing

As stated earlier, the initial start up in each community will involve LPG-based technology. These systems act virtually the same as natural gas based systems and are interchangeable. LPG-based systems are commonly used for peak shaving in many gas utilities around the country. After initial gas loads have been built up, AIGC will then switch over to a blended LPG- LNG based utility gas system. This transition is expected to occur after several years of operation. Although both LPG and LNG are available from numerous sources around the world we plan to obtain both fuels from Canadian suppliers through the port of Prince Rupert, BC.

Canada has abundant supplies of gas feedstocks at competitive world prices. Recent quotes for bulk propane have been in the $0.20 range. However, the long-term historical average places the fuel in the range of $0.25-0.30 per gallon. Railroad infrastructure is in place to carry propane to Prince Rupert, BC from any location in British Columbia or Alberta. Tidewater rail car loading facilities are in place to move the propane rail cars from Prince Rupert, BC to AIGC's communities.

LPG can also be transferred from rail cars to an LPG barge in Prince Rupert and then transported to each community in bulk. Irrespective of whether LPG is transported by railcar or barge, it can be landed in each community for less than $0.55 per gallon, or $6.00 per mmbtu.

LNG would also be obtained from Prince Rupert, BC. However, in this case a peak-shaving LNG manufacturing plant would be built to provide the source of LNG to the Project. The Prince Rupert Port Authority has over 1,000 acres of ocean-fronting property available to support requisite operations, and has already advanced two potential locations for the LNG production facility. A natural gas pipeline currently serves Prince Rupert. This pipeline has sufficient excess capacity to support our fuel needs for an LNG plant. Once our gas loads reach a level that can sustain an LNG production capacity of 60-80,000 gallons per day, engineering and permitting will begin to build the LNG facility in Prince Rupert. It is expected that this will occur in year three or four of the Project. We anticipate that LNG based natural gas service will be on line by year 6 or 7 of the Project. At that point propane-air will be used for peak shaving during the winter high demand season. The projected price range for LNG landed in each community is less than $0.40 per gallon, or $4.80 per mmbtu, based on 1998 gas feedstock prices.

3.4 Technology

LPG has a relatively long history as a fuel, dating back to approximately 1912. It is one of the most economical and efficient energy sources, and has found particular favor in the commercial and industrial sectors. It is a highly versatile fuel and can replace natural gas, fuel oil, gasoline, coal, methanol, ethanol, and electricity. Today it holds a key position in many gas utilities as a peak shaving fuel to supplement natural gas during peak demand periods. This is due to the fact that it can be blended in natural gas in a wide range of proportions with no detectable differences to the consumer. In fact, LPG competes with LNG as the desired peak shaving fuel source.

Our project incorporates the attributes of both LNG and LPG that have been developed in the peak shaving application for gas utilities. However, in our case the peak shaving technology is the sole technology used for operation of the gas utility. This is due to the fact that none of the 17 communities served by AIGC is connected by gas pipeline to a natural gas supply. All of the gas resources are imported by barge or railcar into the community and stored in bulk in a peak shaving facility. Gas is then metered out and distributed to customers on demand, just the same as in operating a peak shaving facility to supplement gas supplies derived by pipeline transportation.

The technology for the use of LPG is mature and well developed. It is all essentially off-the-shelf technology that is fabricated to each project's specifications and needs. All essential equipment is readily available from numerous sources. A typical LPG system consists of storage tanks, pumps, vaporizer, air compressor, air blender, and metering system to the distribution piping system. At present we have planned facilities in the range of 50,000 to 300,000 scfh for installation in the 17 communities in our service area.

The components required for LNG are similar to those for LPG. The major components include fuel transfer piping, storage tank, vaporizer, trim heater, and control system. In contrast to LPG, however, these components all must support storage and handling of a cryogenic fluid. New facilities to handle LNG will be constructed in each community where economically feasible, sized to the full build out load projected for each community.

LNG will be transported by specially designed LNG barge from Prince Rupert, BC to each community. Although the first LNG barge was built and put into service in the US more than 30 years ago, there are currently no LNG barges in operation today. The barge that AIGC would use will be designed, financed and built by Argent Marine Operations, Inc., a world leader in LNG transportation. Argent is currently designing and obtaining US Coast Guard certification for a new generation of LNG barge developed specifically for operation in the US. They expect to have the first of them on line within the next three years, and will be building a fleet of six or more. AIGC has signed an agreement and begun contract negotiations with Argent to supply the LNG barging component on a turn-key basis.

3.5 Future Services

AIGC has received certificates to provide gas utility service to 17 communities on a non-competitive basis. No other company or utility can offer gas service in these communities. AIGC has proposed to develop gas utility service in phases. This approach was endorsed by the APUC, who determined that gas utility service should be initiated within 3 years, and completed within all 17 communities within 10 years.

We have developed a plan to initiate service in all communities as rapidly as possible. Our plan calls for initiating service in several small communities the first year of operations followed in the second year with initiation of service to seven more communities, and finally in year three with service initiated to the remaining six communities. An overview of the project schedule is shown in figure 3.1. This approach capitalizes on the fact that many of the smaller communities can be fully built out within a few months of initiating construction.

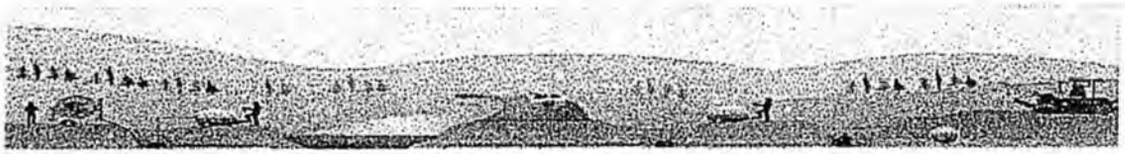
Larger communities that require multiple years of build out will be started in the second and third years of operation. The smaller communities will rely on prefabricated plants and facilities to minimize the build-out time required to initiate service as well. Build out of distribution infrastructure will continue in our service area for a period of 4-5 years. After that initial build out, the distribution systems will be expanded as supported by service demands and economics.

Once service is initiated within one community, engineering will be completed for the next community within the development plan until all have been completed. However, it is important to note that some preliminary engineering will already have been competed for each community in order to take advantage of road construction and improvement activities that will be happening prior to our entry into them with gas utility service. Distribution pipelines will be installed concurrent with these local street improvement projects to reduce overall installation costs. This action will also facilitate the rapid introduction of gas service into these communities with less disruption of road infrastructure. At present AIGC plans to have service on line in all 17communities considerably before the 10-year deadline established by the RCA.

As described earlier, AIGC will actively market residential, commercial, industrial and electric generation customers. However, once gas utility service is established in the community, a significant future market is that of vehicular fuels. Gasoline prices are quite high in all of the 17 communities in our service area. Both propane and LNG, either as a gas or a liquid, are ideal automotive and truck fuels. We foresee a significant growth opportunity in these communities in capturing a major portion of the vehicular fuel market. At a rate of $8.90 per mmbtu a vehicle could be fueled for an average cost of $0.80-0.90 per gallon, pus any applicable taxes. Vehicle retrofit conversion costs, to allow the use of propane in addition to gasoline, are typically in the $1,500-2,500 range. However, new vehicles can be ordered with the capability of using propane at a fraction of that cost.

The use of LPG would reduce vehicle specific emissions by 30-90%, and generally produce 50% less toxics and smog producing emissions than gasoline. LPG is also an approved alternative fuel listed in the Clean Air Act Amendments of 1990 and the Energy Policy Act of 1992. LPG vehicles generally report longer engine life and lower maintenance costs over comparable gasoline engines. Performance and travel distances are also comparable to gasoline-fueled vehicles. LPG vehicles can also be fueled by home-operated pumps off of the gas system or from commercial fueling stations.

AIGC also plans to place fiber optic cables concurrent with the gas pipeline infrastructure to conduct meter reading and other system monitoring activities.



While this cable will support our own meter reading requirements, it will also have excess capacity that can form the basis for telecommunications leasing of cable transmission space. The major Southeast and Gulf of Alaska communities already have, or will have in the near future, fiber optic cable connections to the lower 48. In fact a new fiber optic cable was just laid between Seattle and Anchorage in 1999. Our efforts will complete the fiber optic cable infrastructure within the community itself and represents a near term business opportunity that is maturing very quickly.

4.0 Market Analysis Summary

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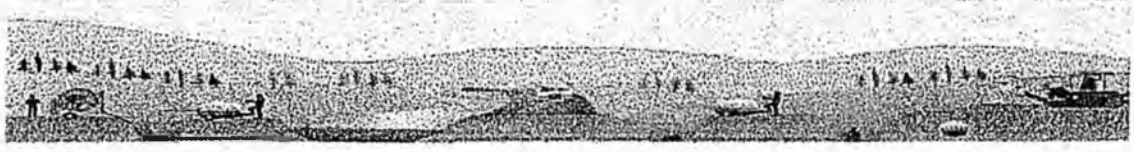
The market for gas service in the 17 communities is estimated to exceed the 16.5 BCF range at full build out. This estimate is based solely on residential, small commercial and large commercial loads, and does not include any demand from industrial sources or the electrical utilities in the service area. There are over 32,000 households representing a population in excess of 85,000 people and 29,000 businesses in the service area.

Industrial loads are primarily associated with industries located in the communities of Juneau, Ketchikan, Sitka and Kodiak; the mining industry; and potential electrical loads that are spread throughout the 17 community service area. Potential cumulative industrial loads have been identified in excess of 4 BCF in the service area. Approximately one-third of the industrial load is associated with the seafood processing industry. There is one active mine, and three more under development, within the service area as well. They represent a cumulative potential gas load of more than 2 BCF. The electrical power generation load presently supplied by Diesel generators is in excess of 30 MW in the service area. This represents a potential gas market with a demand that could exceed 6 BCF. Cumulatively, the industrial, mining and electrical business sectors in our service area represents an additional potential gas load of more than 10 BCF in the near term. The overall electrical potential load marketplace is summarized for our service area in figure 4.1. Our business plan has conservatively included capturing only about 10% of that potential marketplace in the next three years.

Overall, AIGC identified a potential gas market in excess of 26 BCF in five different sectors. The largest load is associated with the residential sector at 34%, while small commercial and industrial loads each account for 14%, respectively. The electrical gas potential accounts for 21% of the market. Large commercial sales and the mining industry account for 10% and 7%, respectively, of the potential gas market.

As this is a start up company, there are no historical numbers to directly gauge



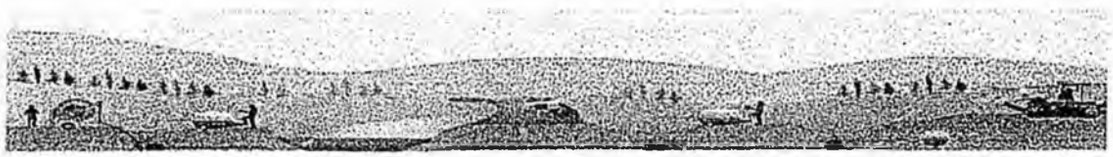
usage of our product by homeowners and businesses. However, based on the experience of other utilities in the "lower 48 States" when initiating gas service to communities, rates of 70-90% sign-up are typical. In a survey conducted for the city of Homer on the possibility of initiating gas service a private advertising company survey also found a subscription rate of 70-90% within the residential and small business sectors for gas service if it would be competitive with fuel oil. The most direct experience with new markets in Alaska comes from the Matsu Valley, near Anchorage, Alaska, where the regional gas utility, ENSTAR, initiated gas service several years ago. Without promotional and marketing activities or incentives, ENSTAR acquired 25% of the market when service was initiated, and have been gaining market share ever since service began.

Based on the above experiences in the industry and our own marketing efforts within the communities it is anticipated that we will see in excess of 50% of the households and businesses in the region convert to gas as a primary and or secondary energy source. Within 5 years we expect that market share to grow to 65-80% of the marketplace. Based on our current estimates, revenues will increase from the $20 million level in the first year of operation to in excess of $33 million within 5 years from the residential and commercial sectors.

In addition to the households and businesses noted above, there are several segments we will address over the course of build out of the Project. These include large apartment and condo complexes; large commercial units such as government buildings, Municipal buildings, schools, hospitals; industrial users such as mines, shipyards, seafood processors, brewers, and manufacturing; and finally the electrical utility industry that is critical to each community we will serve. There is currently more than 30 MW of power in the service area being supplied from Diesel generation. As noted above the industrial, mining and electrical sectors represent an additional marketplace of more than 10 BCF that could expand the gas load demand by more than 70%. These contracted industrial loads are shown separately in our financial plan (Section 7).

4.1 Market Segmentation

AIGC presented its business case to the RCA, and received CC&N's for 17 communities, on the basis of only three market segments. These included residential, small commercial business and large commercial business. We did not include the industrial, mining or power generation sectors, which combined, provide an opportunity to increase full build out gas sales by more than 70%. We wanted to be sure the Project would stand on the minimum usages noted in our three segments. Communities have been analyzed based on information obtained from State agencies, current utilities, federal surveys, Native Corporations and the University of Alaska. The details of these various studies



are the basis of proceeding with the overall plan at this time. The market potential in each of the communities is summarized in Table 4.1 for the first five years of the project.

4.2 Industry Analysis

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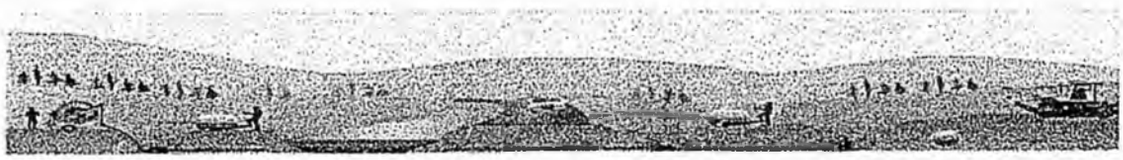
A critical component to gas load forecasting is the consumption rate for potential customers in each segment of the marketplace. Since we are a new utility we have no service area data to directly base customer gas usage levels upon for the service area. However, there are several sources that allow an approximation of expected levels of gas consumption for each segment of the market. In considering space heating for example, ENSTAR, serving south central Alaska, projects an average residential customer load of 1,700 therms/yr. One therm is equivalent to 100,000 Btu's. However, the most recent residential consumer rate reported by the Energy Information Administration (EIA) for ENSTAR in 1997 is 1,810 therms/yr. We have used a residential customer consumption rate of 1,381 therms/yr within our service area; 19% less than that used by ENSTAR, and 24% less than their 1997 reported consumption rate. Our projected consumption rate is similar to that reported by EIA for residential customers in the state of Michigan (1,330 therms/yr) in 1997. The American Gas Association (AGA) on the other hand, projects a consumption rate for communities with average temperatures similar to those of Ketchikan of 1,600 therms/yr, 14% greater than the rate used in our tariff model. In addition to space heating, hot water production, cooking and clothes drying can add up to another 450 therms/yr to residential consumption rates. Potential annual savings for a residential customer are shown for clothes dryers, hot water heaters and space heating systems in figures 4.2, 4.3, and 4.4.

The AGA has also determined rates of consumption for various types of businesses and industries. These rates range from a low of 1,019 therms/yr to a high of 204,000 therms/yr. The EIA has reported average consumption rates for the west coast states of California, Oregon, and Washington as 6,010 therms/yr for commercial businesses. We have used a small business load of 4,800 therms/yr and a large business load of 32,160 therms/yr in our forecasting, that computes to an average commercial rate of 6,510 therms/yr. Our estimates for small and large commercial businesses were based on the experience of Southwest Gas Company, one of the most rapidly growing gas utilities in the country, in planning and forecasting gas loads within new and expanding service centers.

The AGA determined that typical industrial loads range from 87,600 therms/yr to more than 204,000 therms/yr depending on type of industry. However, the EIA reported that the average industrial consumption rate for industrial consumers



in the states of California, Oregon and Washington in 1997 was 228,980 therms/yr. The industrial load estimates we have used are consistent with industrial rates reported for other states. The average industrial consumption rate used in our business plan is 218,650 therms/yr, 5% less than the average for the west coast states reported by the EIA. Our estimates for seafood processing, timber facilities, hospitals and shipyards were based on existing Alaska infrastructure, available public information, and estimated annual fuel consumption.

The most significant industry in our service area is seafood processing. Alaska leads the nation in seafood landings and processing. The community of Kodiak in our service area is ranked number two in the nation in value of seafood landed, and number four in volume of seafood landings. Of the ten seafood processors in the Kodiak Island Borough, five are located within our service area. Overall there are more than 14 seafood processors within our service area. The largest seafood processors can consume more than three million gallons of fuel oil on an annual basis, and all but the smallest processors, are major users of energy for six or more months each year.

AIGC identified 160 industrial customers in a survey of the industrial customer base in the phase I communities that provide a potential gas load in excess of 3 BCF. Seafood processors account for one third of that potential gas load. Since industrial customers will enter into specific contracts with AIGC, gas loads associated with industrial contracts have been summarized separately within our financial plan (section 7).

Electrical loads will also be developed as industrial contracts in each community. There is a potential electric power generation market of 75 MW to 100 MW potentially available within the SEAGA Gas Project service area. Currently electricity is provided to the 17 communities through a mix of Diesel and hydropower generation. In the phase I communities there is currently more than 27 MW of Diesel electric power generation. We have estimated that approximately 6-10 MW can be captured immediately through gas co-generation projects in these communities. Ketchikan currently has more than 10 MW of Diesel generation from generators that are in excess of 20 years old. This capacity could be converted to gas turbines in the immediate future once gas service has been initiated in the community. Another 4 MW could be captured in Sitka by replacing existing Diesel generation.

The local utility in Ketchikan also purchased a new 10.5 MW Wartsilla generator that has been on line now for a little more than one year. Unfortunately, it is not convertible from Diesel to gas fuel sources. However, it represents a potential future gas load if an opportunity were found to move the Wartsilla generator to

another community or convert it to reserve standby status, and simultaneously show cost savings to the utility with the installation of 10 or more MW of gas turbine generation capacity. This replacement opportunity is particularly relevant because Ketchikan is seeking to increase their generation capacity by at least 20 MW in the next few years. However, a gas turbine generation project in the 20-30 MW range would have to compete with other local hydro and electrical intertie projects that have been proposed to serve Ketchikan's long term energy needs.

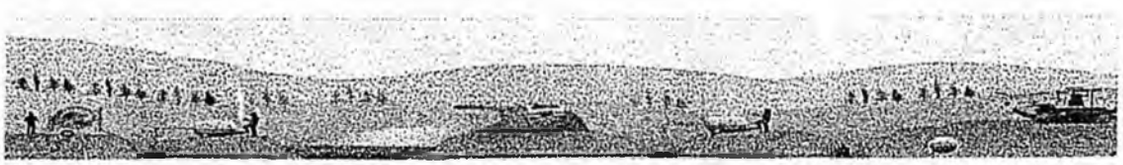
There is also an electrical market associated with the rural communities in Southeast Alaska. There are currently 64 million kilowatt-hours of Diesel power generation in these communities. These small loads, cumulatively representing approximately 0.9 BCF on an annual basis, would be actively marketed as gas service is introduced into each community

Significant electrical loads are also available within the Gulf of Alaska communities in our service area. The communities of Valdez, Cordova and Kodiak provide a near term opportunity for more than 25 MW of power that is currently being supplied by Diesel generation. Kodiak alone presently has more than 10 MW of Diesel generation capacity on line that could be captured in the longer term. Cordova currently has 10 MW of Diesel generation that could be replaced with gas turbines. There are also 5 seafood processors in Kodiak that provide an opportunity for co-generation projects cumulatively amounting to another 5-8 MW.

Valdez also has unique power generation opportunities. Within the community there is the potential for 7-8 MW to replace existing Diesel generation. In addition there is a potential generation market associated with the Valdez oil terminal for 10 MW. Existing capacity is based on Diesel, but State and federal air quality pollution emissions control limits and monitoring requirements may make the purchase of electricity from a third party attractive to the facility. The potential gas sales from these communities would generate a demand in excess of 2.6 BCF.

Finally there is a significant potential gas load associated with power generation for the mining industry in Southeast Alaska. The largest operating mine in Southeast Alaska is the Greens Creek Mine on Admiralty Island. This mine is less than 40 miles from Juneau, and currently has approximately 12 MW of installed capacity operating on Diesel fuel. The mine typically operates 5-8 MW to supply energy requirements. This power load could be acquired concurrent with the introduction of gas to Juneau, and could add almost 1 BCF to the Juneau area load.

In addition to the Greens Creek mine there are three other mines in various



stages of permitting and development in Southeast Alaska, all of which are projected to go into production within the next ten years. These are the Niblack prospect, 30 miles east of Ketchikan; the Tulsequah Chief mine, 40 miles southeast of Juneau; and the Kensington mine, 48 miles north of Juneau. These mines represent a near-term potential future gas market in excess of 2 BCF.

4.2.1 Industry Participants

There are few choices and competitors in the local energy marketplace. Fuel oil is the primary space heating fuel, largely be default. It accounts for an average of more than 60% of the space heating in Southeast Alaskan communities. The next most common fuel source is electricity, which accounts for 15-30% of the energy use. Bottled propane typically accounts for approximately 5% of energy use in each community.

Energy supplies can be considered somewhat monopolistic in that in most cases there is only one source of supply within a community. In the case of fuel oil there are typically only one or two suppliers. In all cases the prices follow what the market will bear. This is best illustrated in Juneau, where a major oil company recently went into competition with the traditional fuel supplier. Initially prices dropped almost $0.40 per gallon, but after several months, despite competition, prices had climbed back to within $0.10 of former levels. In Southeast Alaska you pay the asking price or do without.

Home heating oil consistently costs more than $1.00 per gallon, and currently costs more than $2.00 per gallon in our service area. The cost of home heating oil briefly dropped below $1.00 per gallon when crude oil prices went below $10.00 per barrel. However, crude oil prices have since risen back to $18.00+ per barrel, and fuel oil prices have moved back to historic average costs. Based on $18.oo per barrel crude oil, most commercial fuel oil costs, in quantities greater than 1,000 gallons, fluctuate between $0.90 and $1.15 per gallon, depending upon season when delivery is taken. In the current market all commercial accounts are over $1.00 per gallon. In addition, fuel oil prices are subject to daily price variations in the marketplace, and also change in response to local demand, inventories, and season.

In the case of propane and electricity there is only one source of supply within each community. Neither energy source competes with fuel oil. In most cases hot water is primarily supplied from electric power. However, both Juneau and Ketchikan are actively exploring options for new sources of power since they both have to use Diesel generation for peaking requirements. The power company in Juneau is strongly in support of the introduction of gas to the community. They see the switch from electricity to gas a bonus for them to

avoid additional costs to expand their generation capacity.

Energy costs are generally quite high in rural Alaska. Southeast Alaska is a mix of high to extremely high-energy costs. This cost is a significant deterrent to businesses located in the region. Energy intensive businesses, such as seafood processing, are particularly hard hit by energy costs. Cordova has been unable to attract a new seafood processor due to high-energy costs in the community. However, with the introduction of gas utility service to these communities there is an opportunity to reduce the overall costs of energy to both residents and businesses. The rates proposed by AIGC are shown in relation to selected other state for the year 1997 in table 4.4. This comparison shows that while our proposed rates are high compared with the western states, where gas supplies are abundant, they are very competitive with rates from the New England state, where all of the gas is imported or transported over long distances, similar to our proposed operations. When evaluated on a percentage basis compared to the cost of gas at the "City Gate", our proposed cost structure is similar or better than rates available in the New England states, as well as the western US states.

4.2.2 Distribution Patterns

AIGC has been granted CC&N's for 17 communities in the Southeast and Gulf of Alaska regions. We are the only company that is allowed to operate a gas utility within these communities. We will sell natural gas, propane and manufactured gas to customers via a pipeline distribution system as a regulated utility. Our customer base will come from within the existing community by conversion of homes, businesses and industries to gas utility service. We will offer an environmentally friendly, convenient and cost competitive energy source to each community that has not been available before. Once our service is established in each community, secondary benefits can accrue from decreased electric power rates, new technology, and fuel efficiency that will positively influence the quality of life and standard of living in each community.

Approximately 53% of the residential and small commercial projected gas loads are associated with the communities of Juneau, Ketchikan and Sitka. The remaining 14 communities would contribute an additional 47%. However, most of the large commercial and industrial loads are associated with the three largest communities. These industrial loads amount to approximately 70% of the overall loads projected from residential and commercial customers.

4.2.3 Competition and Buying Patterns

There is virtually no competition within the marketplace. The choice of space heating system is driven by cost and availability. In Juneau the City is

promoting bottled propane, even though it is one of the most expensive fuel choices available. Electricity is being discouraged due to the fact that the community is currently at its peak capacity. Use of Diesel for peaking is causing electric rates to go up. In 1998 Alaska Electric Light & Power notified customers of a pending $0.05 surcharge if they implement peak shaving with Diesel power. The city of Ketchikan has been continuously running Diesel generators to supplement hydropower for the past 18 months. There is also a significant cost associated with storage of petroleum products. Infrastructure is old in the communities and many communities have significant pollution problems. The introduction of gas is being viewed very positively within these communities as an alternative to undesirable fuel oil use. The fact that it is being introduced at a competitive rate to fuel oil is being regarded as a godsend to their problems. Community response has been to encourage start up of our utility service as soon as possible.

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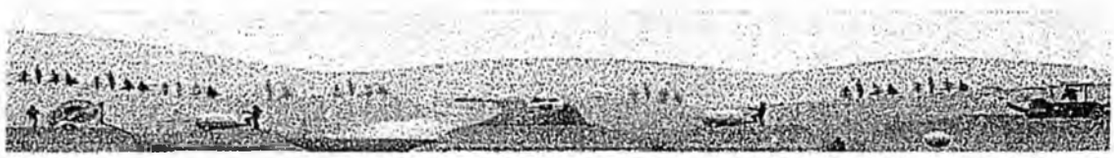
Our efforts to ensure success have keyed largely on cost, even though there are significant other benefits to gas utility service. Entry into the marketplace at a scale to ensure long-term profitability means that the gas utility must displace fuel oil in the residential sector, as well as electricity for generating hot water. The small and large commercial sectors will follow cost. Our pricing will allow an average payback period of 5 years or less for most customers. This will allow municipal and government facilities to qualify for alternative energy grants to pay for conversion costs. Many homeowners will also qualify for energy grants based on efficiency upgrades and payback time lines. AIGC will also have an aggressive incentives program to encourage early sign up to our service.

In addition much of the cost of conversion will also qualify for federal and local tax deductions. AICGC staff will work with homeowners, businesses and industries to maximize the energy efficiency benefits for conversion to gas utility services. For example, all municipal and government building and facilities qualify for federal energy conversion grants if the payback for the conversion can be recovered within 5 years. These grants cover 100% of the cost of conversion. Similar grants are available for many electrical utilities in our service area. Both State and federal energy efficiency grant programs are available that cover part of the homeowner costs for gas conversions. These programs are usually tied to the magnitude of energy savings from conversion to alternative fuels, such as gas. Similar federal programs are available to the electrical utility industry in Alaska to pay for conversion of generation capacity to alternative fuels. These grants can generally be in place within two years from the time of application.

To enhance our entrance into the market AIGC will be implementing an aggressive incentives program to ensure early conversion to gas utility service. Incentives will be tailored to individual household and business situations.



However, one incentive applicable to all customers will be waiver of hookup fees for those who sign up during build out of the utility infrastructure. Many of these incentives will be developed in concert with national providers of appliances based on development of new market opportunities for them in our service area. Other incentives that may be used include the following:

- Gas credit bonuses
- Appliance rebates and bonuses
- Special purchase discounts
- Early sign-up contract bonuses
- Special manufacturer and vendor promotions
- Installation discounts
- Financing/refinancing assistance
- State/federal energy grant/loan assistance
- special loan opportunities
- Permanent Fund Dividend specials
- Rebate opportunities
- Alaska Airlines Mileage bonus
- Credit card promotion

In addition to other benefits, the fact that we are a regulated gas utility, will provide stability to the energy costs incurred by consumers. Our customers will not be subject to the fluctuations of the market, local supply and demand, and seasonal pricing strategies as they are now with fuel oil and bottled propane.

4.2.4 Main Competitors

Our competitors in the energy field consist of the local power companies, fuel oil distributors and propane dealers. In the case of electricity in Juneau and Ketchikan, both electrical utilities are active supporters of AIGC's efforts to bring gas to their communities. Ketchikan has already embraced the concept of shared services to improve the cost efficiencies of both operations. Juneau has seen this as an opportunity to avoid building expensive new generating capacity in the near future. They will have to run Diesel to cover expected growth that will increase local electric rates. In the case of Sitka, they will see a loss of revenue, but are still supportive of the introduction of gas for the overall community benefits it will bring to the community.

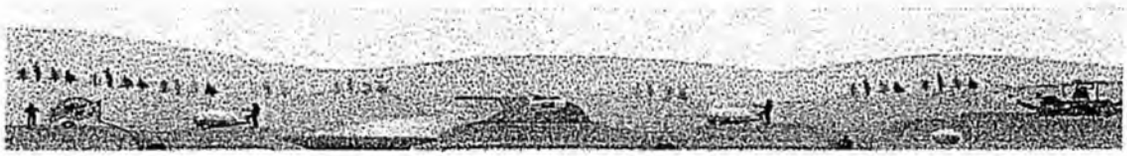
Bottled propane has a very small market share in each community. As shown earlier the price structure prohibits widespread use of propane in these communities. Our entry into the marketplace will increase the opportunity for bottled propane in both the short- and long-term due to the widespread use of gas appliances in the community. They will be able to sell more propane to

customers that will be served by AIGC in the future, as well as capitalizing on our marketing program.

Fuel oil distributors will have little flexibility to out compete our service. The fuel oil suppliers charge what the market will bear, leaving a small margin for local retailers. The fuel oil price structure is inflexible to respond to competition from other fuels. There is significant resistance to lowering fuel oil prices below $0.90 for commercial accounts, and virtually no incentive to change the home retail fuel price structure. Their history has been to slowly reduce prices, but raise them as soon as crude oil prices rise, even though months of supply sit in storage in the community. During the recent period of record low crude oil prices, retail home heating fuel did not drop below $1.00 per gallon until crude oil dropped to less than $10.00 per barrel; a change of more than 80% that resulted in only a 15-20% change in retail home fuel oil costs. Although it would appear that oil consumption would be driven down, the economic development associated with more competitive fuel costs has been found to spur oil consumption in other sectors than home heating. It is likely that energy use will stabilize at similar levels within the fuel oil energy sector after redistribution of the customer base and economy.

5.0 Strategy & Implementation Summary

Our marketing strategy in the start up of the Project is quite straightforward. The RCA requires that we make available to consumers economically viable gas utility service to each community. However, that service does not have to be made available to each and every residence or business entity. Consumers will be able to choose which type of fuel to use that best meets their specific needs and circumstances. We will offer gas utility service to each household and business owner in a highly attractive package emphasizing cost, convenience, and environmental advantages, as we install the gas distribution lines in each community. Both technical and financial assistance, as well as incentives, will be provided to new customers to facilitate conversion to gas utility service. Large businesses, industry customers, and electrical utilities, all business entities able to contract for minimum volumes of gas on an annual basis, will be individually marketed to obtain commitments for gas sales contracts concurrent with the final engineering and permitting work in each community. Prior to actually commencing construction, an aggressive marketing campaign, directed by the Vice President of Marketing, and utilizing local customer service representatives and recruiters, will be initiated targeting homeowners and small businesses using the print media, direct mail, radio and TV advertising, and door-to-door sales promotion. The program will be centered on the above-mentioned factors of convenience, cleanliness and cost effectiveness of converting to gas utility service. It will show that the conversion to gas is the most cost effective and



reasonable path to follow at this time.

5.1 Marketing Strategy

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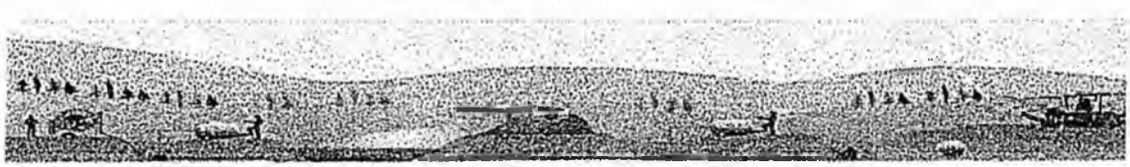
We have addressed several marketing concepts to date to ensure successful market penetration and achievement of objectives. Much of our marketing focus is aimed at the residential load to encourage early conversion to gas utility service. These include giving each residential customer who signs up in the first 12 months a new water heater, partial credit for a clothes dryer, purchase credits for other appliances and furnaces, special promotional financing for major conversions, loan assistance, energy grant application assistance, gas credits, early sign-up bonuses, installation discounts, and special manufacturer promotions. We have conferred with several gas utilities across the USA who have used similar programs with much success over the years. We have also considered using a Visa issued with our logo. Customers could set up their monthly gas bill against this card, as well as pay for conversion costs on this credit card. Special introductory interest rates will also be available to enhance the attractiveness of this approach to consumers. We have also looked at offering frequent flyer miles on Alaska Airlines as a sign up bonus for the first year we offer service. As we go forward through the construction phase, these programs will be firmed up and introduced to the public.

There are myriad opportunities in this area to excel and assure achievement of market penetration objectives. Many of the incentives have been described earlier in section 4.2.3 and mentioned here as well. When these incentives are coupled with the competitive pricing structure of our service we feel confident that our market share will grow quickly and exceed our projections.

An additional element in our planning is the consumption rate projected for each customer. Over time we fully expect that the average residential customer consumption rate will grow as consumers adjust to gas utility service. We anticipate that annual residential consumption will gradually move upward from our projected 1,381 therms/yr towards the AGA reported industry average of 1,601 therms/yr based on average community heating degree days. This internal consumption growth represents a 14% increase in potential annual gas sales.

In contrast to the residential sector, we will employ a direct marketing approach with the business, industrial and electrical sectors. This will be the primary focus of the Vice President of Marketing. We will craft specific incentives packages and benefits to encourage these businesses and industries to convert to gas service as soon as it is available at their location. The emphasis here will be primarily on economic and environmental benefits of conversion to gas utility service. Each contract will be uniquely crafted and negotiated to offer the most



competitive and economical service possible to potential customers. We will also provide information and grant writing support for customers who would qualify for federal and State subsidies for energy efficiency conversion to gas utility service, with particular emphasis on programs funded through the DOE Energy Efficiency and Renewable Energy program, the DOE Miscellaneous Energy programs, the DOE Energy Savings Initiatives program, the DOE Energy Loans program, the DOE Rural Energy Programs, and the USDA Rural Development program. Particularly important State programs include the Municipal and Regional Assistance Development grants programs, the Department of Community and Regional Affairs Power Project Fund loans program and utility improvements grant program, and the Energy Assistance program.

5.1.1 Implementation Plan

Our marketing campaign is divided into three stages, with Stage I focusing on major industrial customers. This stage of the marketing campaign is already underway. Stage II and III of our marketing campaign involves small and intermediate commercial businesses and residential accounts, respectively. These two stages will be launched concurrent with permitting and final engineering of the community infrastructure. A customer sales representative will be hired in each community to assist the Vice President of Marketing. The Customer sales representative will direct temporary sales recruiters in conducting the marketing campaigns in each community. The marketing campaign will include TV, radio, newspaper, and magazine advertising, as well as speaking engagements with various civic and community groups and exhibit booths at community and regional events. We will also establish information kiosks, that will be manned during certain hours, to disseminate information directly to the public. Our advertising campaign will cover the broad spectrum of services and benefits from gas utility service rather than focusing on any one-customer sector. The information marketing will focus on both education of the public on how gas utility service works and will be provided to them, as well as on specific benefits to customers, the community and local businesses and industries. We will particularly emphasize synergies between gas utility service and potential reductions in electrical power rates, overall cost of energy, economic opportunities and individual benefits.

Once firm construction dates and schedules have been established, direct marketing of each customer sector will be initiated. We will employ sales recruiters for residential homes using a bonus program for sign ups. The recruiters will canvass neighborhoods, pass out flyers, and conduct telephone interviews to ensure that all residents along our distribution routes have the opportunity to sign up for gas utility service.

Gas sales marketing efforts with large businesses, industry and electrical customers will shift to developing sales contracts based on the commitments signed earlier by each customer, once our start up date for service in a community has been established. Specific terms and conditions, as well as contract pricing structure, will be developed for each customer based on their business needs, volume of gas to be supplied, and providing the most competitive gas utility service for their operations.

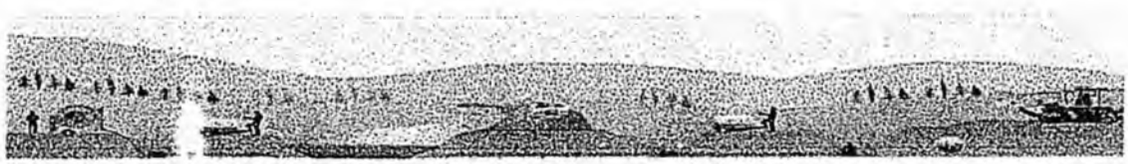
5.1.2 Pricing Strategy

Both LPG and LNG feedstocks will be obtained from Canadian sources. Our start up operations will rely exclusively on propane purchased in British Columbia or Alberta, and transported by railcar to Prince Rupert, BC. AIGC will negotiate with multiple independent suppliers for guaranteed delivery contracts of propane F.O.B. railhead locations in British Columbia and Alberta. Amoco Canada Petroleum Company, Ltd has already agreed to contract for base loads of natural gas for the project, and discussions have begun on similar base loads for propane. During the past two years we have obtained quotes from several suppliers and brokers for bulk propane ranging from a low of approximately $0.18 per gallon to $0.05 -0.08 below the Mont Belvieu spot market price. The long-term average for Mont Belvieu would result in a propane cost of $0.25-0.28 per gallon. We have used the high-end wholesale export contract rate from the last 10-year period for our price of $0.3385 as the average cost of LPG for the SEAGA Gas Project.

We have held discussions with representatives of the Canadian Railroad on cost of transporting bulk propane. We have reached preliminary agreement on railcar transportation that would include use of the hydro train barge facilities in Prince Rupert and port fees. The preliminary rate quoted to AIGC was $0.115 per gallon. We have used this rate in our business plan.

Finally the LPG must be transported by barge to each community. We have obtained estimates from several sources on transporting propane tanker cars by barge. These estimates have ranged from $0.04 -0.05 per gallon for the Southeast Panhandle area encompassed in our service area. We have used a cost of $0.06 per gallon in our business plan. This estimate includes local port fees as well.

The above estimates for purchase, rail and barge transportation, and landing of fuel in each community results in an estimated city gate price of $0.5435 per gallon, or $5.9334/mcf. Based on the range of quotes obtained, we expect that this will be very close to the actual landed price of LPG once long-term contracts have been negotiated. However, since we will be the largest



purchaser of bulk propane in the region we expect that long-term contracts could reduce the city gate price of propane by $0.30 or more. These types of business negotiations have not been included in our price estimates for any of our costs in the project. The city gate price of $5.9334/mcf for LPG supports our tariff structure described in the next section.

As stated earlier our pricing structure will be competitive with that of fuel oil. We expect that in most years we will have a 10-25% cost advantage over fuel oil. Compared to bottled propane or electricity our gas utility service will enjoy a competitive advantage in excess of 60%. Our proposed residential rate is compared to those from other states in figure 5.1. While this figure shows that western states generally have the lowest cost gas utility service, on a national level our rates are quite competitive.

Pricing will not be the only focus of our marketing strategy. We will also be offering long-term price stability, on demand service, and higher efficiency appliances. To be sure, pricing is a major component of the plan but it is important to maintain an emphasis on the cleanliness, convenience and safety of gas utility service, as well as the collateral community benefits related to economic development, pollution control and prevention, and potential long term reductions in electrical costs.

Our current pricing strategy places us considerably lower than fuel oil based on average fuel oil prices over the last 5 years. In general customers will realize a net savings of 15-40% over fuel oil; and, in most cases, expect to achieve a payback of conversion costs in approximately 5 years or less. In the case of hot water conversion to gas, a payback of less than one year can be expected.

Our pricing will be most attractive to the people of the region who currently use electricity for space heat and hot water, and those using bottled propane. For residential use hot water is almost exclusively obtained from electric water heaters, while electricity accounts for 10-30% of the home heating systems within the service area. Our gas utility service will have a greater than 50% cost advantage over both bottled propane and electricity.

5.1.3 Tariff Rate Structure

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Our preliminary tariff rate structure was filed with the APUC on May 19, 1997. This rate schedule was approved as part of our utility certification provided that we file, and get approval for, an amended final tariff rate structure prior to delivering gas service to customers. That final tariff would be in effect for a period of three years before being reviewed again by the Commission. The tariff would be reauthorized or modified during that review based on the

justification and rationale provided from our actual operating experience during the first three years of operation.

The tariff filed in 1997 contained rate schedules for three classes of service and a miscellaneous fees category. Rate schedules were not included for industrial or electrical customers. The rates for these classes of service are summarized below. In addition to these rates the miscellaneous category defined the cost for installing gas service as $50.00, and excess footage costs for installation of service piping, if more than 100 ft of pipe were needed, to install the service connection.

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Residential Service

Cost of gas -	$7.25/mcf
Monthly service charge -	$4.50

Small Commercial Service

Cost of gas -	$6.89/mcf
Monthly service charge -	$7.50

Large Commercial Service

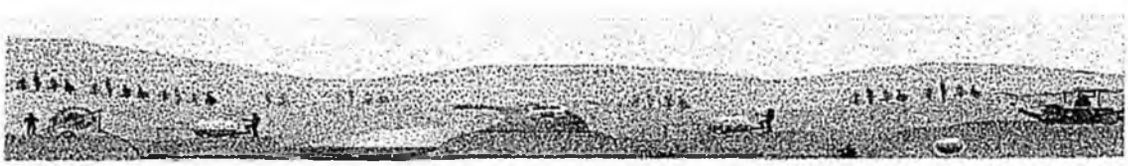
Cost of gas -	$6.53/mcf
Monthly service charge -	$40.00

We are proposing to make changes for our final amended tariff rate structure based largely on the current cost of gas feedstocks as reflected in this business plan. They also reflect refinement of our engineering and cost numbers since 1997 and the inclusion of industrial and electrical customers in our business plan. We expect our numbers to continue to change slightly to reflect actual costs when engineering and construction work is awarded to successful bidders, and the final structure, terms and conditions of gas purchase contracts in Canada. The tariff rate structure used in our business plan is shown below. However, we will be entering into negotiated contracts with industrial and electrical customers for specific gas volumes on an annual and monthly basis. The price for gas supplies will be variable and tied to the contract with each customer. The values shown below represent the average price charged customers as a result of contract negotiations within each of these two service classes. In addition to these rates the cost of gas installation service has been modified to $150.00.

Residential Service

Cost of gas -	$8.90/mcf *
Monthly service charge -	$7.95

* These are prices from the year 2000. gas prices have since come down closer to the numbers in our original tariff rate.



Small Commercial Service

Cost of gas -	$8.45/mcf
Monthly service charge -	$9.95

Large Commercial Service

Cost of gas -	$8.01/mcf
Monthly service charge -	$40.00

Industrial Service

Cost of gas -	$7.65/mcf (negotiated ave.)
Monthly service charge -	$40.00

Electrical Service

Cost of gas -	$7.39/mcf (negotiated ave.)
Monthly service charge -	$40.00

At present our tariff structure has been presented to the APUC as applicable across all communities within our service area. This is similar to the structure used by ENSTAR, the State's largest gas utility, that serves the Anchorage and Matsu Valley markets. However, there are unique costs and logistics associated with each of our communities. After the initial three-year period of operation when our tariff comes up for review, it may be necessary to develop specific tariffs for each community as opposed to the area wide tariff approach adopted here. Our proposed area wide tariff particularly increases our competitive advantage over fuel oil in the smaller communities where both fuel oil and electric are considerably more expensive than in the major population centers. Electrical rates in the smaller communities are typically two or more times the rates in Juneau,

5.2 Sales Strategy

As stated earlier our marketing and sales strategy is still in the formative stage and will be more fully developed under the direction of our Vice President of marketing. However, several elements have already been conceptually developed. For example, all government and municipal buildings are eligible for grants to pay for conversion to an alternative fuel if it can be demonstrated that a payback of the conversion cost can be recovered within 5 years. AIGC will actively work with all qualified municipal and government buildings and agencies to maximize the local benefits of this federal grant program. The same type of grant program is also available to many residential customers who could qualify for energy efficiency grants.

Our incentives program will also emphasize the 5-year payback opportunity to businesses and homeowners. This will primarily be at the beginning of our entry into each community in order to encourage early sign up and participation in our service.

Our community-marketing program will involve local advertising, mail solicitation, as well as door-to-door sales promotion. This effort will be keyed to the time frame within 6 months of start up of gas service. Local sales representatives will be recruited, as well as regional company representatives from appliance vendors. Local radio, television, and cable services will be utilized in this effort, along with presentations to service organizations, regional meetings and events, and other citizens groups in the community.

6.0 Management Summary

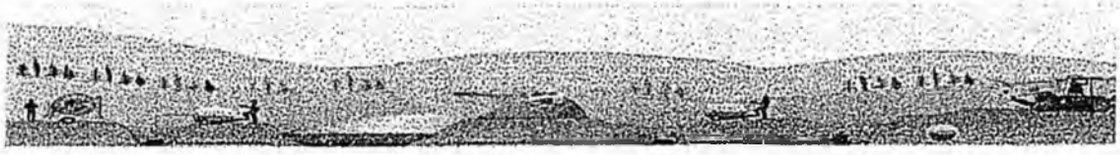
AIGC has operated with only the initial stockholders and two employees since inception. Its goal has been to maintain as low a level of expense as possible while meeting the many deadlines associated with obtaining APUC approval for the Project. There are no plans to significantly increase staffing until detailed engineering and permitting is initiated. In the near term a marketing manager and operations manager have been recruited to support the efforts of the senior management team in 2001. Once the company is through the permitting and initial financing stages, it is expected an additional six to ten employees will be hired.

6.1 Organizational Structure

The organizational structure for AIGC is well developed at this time. The attached Organization Chart shows the structure proposed to the APUC with the most recent filing and addresses the key issues in this area. As can be seen from the organizational structure 23 key staff functions have been identified to operate the utility on a day-to-day basis. We expect to cover these functions with 12-16 permanent staff, supplemented with contract services for some specific expertise when needed. In addition to this staff it is expected that 20-25 technical support staff will be needed within the communities to operate the LDC's. At full build out this number could exceed 50 technical staff.

6.2 Management Team

The management team at AIGC has a strong and diverse background. It has been assembled over the course of the past five years and reflects the commitment to excellence that will bring ultimate success to this Project. There are extensive resumes and discussions of the team members in the APUC



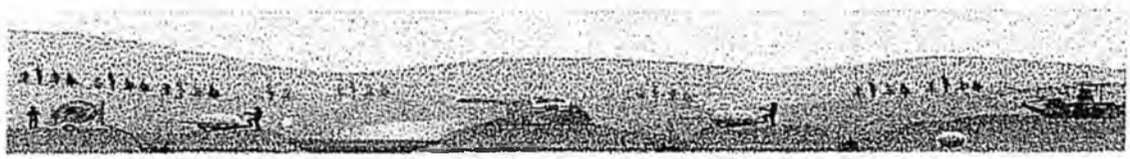
filings, which are attached for the reader's reference, but we will summarize each key manager's experience below.

Francis L. Avezac: Chairman and founder of the Project. Mr. Avezac has extensive experience in government service as well as business development and management. He has been involved in the petroleum and gas industry for over 10 years, and has lead the SEAGA Gas Project since its inception in 1991. Mr. Avezac has been a specialist in the innovative handling of petroleum-based fuels in remote or environmentally sensitive locations. Mr. Avezac was one of the leaders in solving the logistical problems associated with the energy needs of contractors and the military during the Exxon Valdez oil spill cleanup effort. He is 53 years old and has been a resident of Alaska for over 20 years.

B. Juline Magden, CPA: Senior Vice President, CFO and Board Member. Ms. Magden is a certified CPA and has practiced in Alaska and California. She has over 12 years of senior experience with the national accounting firms of Arthur Young & Company and Coopers & Lybrand. Most recently she was controller and CFO for Denali Petroleum Company before joining the AIGC team.

Elisabeth H. Ross, BA, JD: Independent Counsel, Birch , Horton, Bittner and Cherot. Ms. Ross is a recognized authority in the regulation of affiliated interests in the utility industry. Ms. Ross served as an Assistant Attorney General representing the Alaska Public Utilities Commission from 1978-1982, and has been in private practice for the past 17 years. She has represented the Commission before State and federal courts, developed standards for affiliated interests that have now become law, and participated in a broad range of rate, rate design, certification and tariff cases involving telephone, gas, electric, water, wastewater and garbage utility companies. Ms. Ross is a member of the Federal Communications Bar Associations, the Women's Bar Association, the Bar of the District of Columbia and the Alaska State Bar, and is admitted to practice before the US Supreme Court.

Paul C. Rusanowski, PhD: Board Member. Dr. Rusanowski served in the Governor's Office as Director of the Division of Governmental Coordination. He was responsible for administering the Alaska Coastal Zone Management Program, coordinating multi-agency permitting of projects in the State, coordinating State agency comments on federal actions within the State, and coordinating comments on parks and refuge lands in the State. He was the Executive Administrator of the Governor's Natural Resources Sub cabinet, as well as the Governor's representative on President Clinton's Alaska Wetlands Initiative, the Coastal States Organization, the Outer Continental Shelf Advisory Committee to the Secretary of the Interior, and the Oil Pollution Act working Committee. Dr. Rusanowski has worked in the oil and gas, electric power, and



mining industries for more than 20 years. He is on the boards of several influential groups in the resource industry around the State. Paul is 52 years old and has been in Alaska for over 20 years. He is a resident of Juneau, Alaska.

Tom LeNeau, General Manager. Mr. Tom LeNeau is the former President and CEO of Black Mountain Gas Company. He has over 12 years of experience in operating a gas utility with high growth characteristics. He has been personally involved in all phases of the utility operations and maintained a growth rate of approximately 20% per year. He has direct experience in both natural gas and propane distribution systems and was responsible for converting portions of their distribution system from propane to natural gas. He has a strong background in financial management. When Black Mountain Gas Company was sold it had been built into a utility with more than 40,000 customers located in three major communities.

James Kusemark: Southeast Operations Manager, Mr. Krusemark has more then 18 years of gas utility experience with Montana Power Company. In addition, he teaches gas distribution, power and utility courses in the Engineering Department of Montana State University in Butte , MT. Mr. Kusemark joined Montana Power Company as an engineer in the Gas Transmission Department. His duties included design and inspection of transmission lines, both operating and new construction, and design and installation of cathodic protection systems. He has moved through progressively higher positions of responsibility on the engineering staff as Division engineer and then Senior Engineer supervising all aspects of design, construction and operation of both gas and electric facilities of Montana Power Company. In his most recent position he was responsible for all gas and electric distribution of operations of Montana Power Company through out the state of Montana, including responsibility for operating standards, emergency procedures, and budgets.

Nick W. Kendle: Senior Vice President of Marketing. Mr. Kendle has worked in the gas industry for more then 26 years. Most of that time was spent in marketing development activities with Southwest Gas Corporation or its affiliates. Mr. Kendle has developed and implemented gas appliance dealership programs, centralized teleservces marketing centers, marketing information systems, and sales and promotion plans. He also worked as a senior staff marketer for utility consulting firms and developed marketing programs, products and services targeting the gas utility industry. In his most recent position with Southwest Gas corporation he was the corporate marketing manager for commercial industrial and CNG marketing in five divisions of the Corporation and ran a subsidiary marketing LNG, including sales, engineering, marketing and operations throughout the western United States.

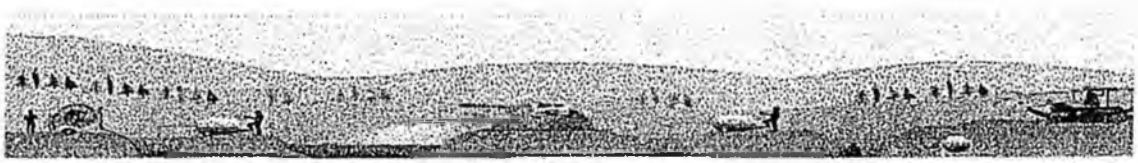
We have also retained the services of Mr. John A. Magyar as a consultant to AIGC for utility operations and services. Mr. Magyar is the former general manager of the Ketchikan Public Utility (KPU). He has over 12 years of utility experience in Alaska, as well as intimate knowledge of the existing utility infrastructure in Ketchikan. He has already been invaluable in facilitating negotiations with KPU on cooperating on consolidation of utility operations for cost efficiencies to both KPU and AIGC.

6.3 Personnel Plan

The AIGC management team will build the day-to-day operations workforce using local hire and local expertise to the maximum extent possible. There are many people with related utility experience from the water, wastewater and power sectors in each community. We will draw from this pool of talent to staff our utility operations. To ensure that we have highly qualified staff specific to gas utility operations we will initially contract for those services through one of our team members, Smith & Norrington Engineering, Inc. They have agreed to support the full implementation of an operating program and staff during the first few years of service to the communities. During that time, qualified individuals will be hired by AIGC in each community, who will then be trained by the Smith & Norrington staff on the job, and when fully qualified, replace the Smith & Norrington staff person in the utility operations. This training period is expected to last for up to two years in each community before a full complement of AIGC personnel is on board. We expect that approximately one half of our technical staff will ultimately move through this training program and be permanently employed by AIGC.

The build out of the utility infrastructure will also rely on the local workforce to the maximum extent practical. Contractors will be required to maximize local hire within each program. Where needed, we will bring expertise from the lower 48 into the community to provide requisite training for handling and laying gas pipelines. Preliminary discussions have occurred with vendors supporting this approach to ensuring expertise is available on a continuing basis for supporting the gas utility. Supervisory staff and QA/QC functions will rely of high quality expertise from individuals and companies with established track records in gas utility contracting and construction services.

A similar approach will be utilized when LNG is introduced into a community Contractors and subcontractors used to build the necessary cryogenic infrastructure will be required to maximize in-state and local hire whenever possible. Smith & Orrington will, again, assist AIGC in training a local workforce for long-term operations in each community.



There are many quality employees available throughout the service region for the office, clerical and sales positions we expect to create over the next few years. We will hire as many Alaskans from the local communities as possible for these staff positions. In addition, AIGC will favor qualified local hire, over the relocation of outside workers, when training personnel for specialized technical positions within our workforce.

7.0 Financial Plan

The financial plan for the company has been developed and refined over the course of the past five years with extensive updating during the past few months. The plan is based on recent input from a variety of industry, engineering, and construction company sources and vendors over the past 8 years. We have carefully researched all of this input, made adjustments where needed to reflect Alaskan conditions and communities, and verified these numbers through independent sources.

The rate-forecasting model we have used was developed specifically for small communities, and has been used by other utilities to estimate initial service to communities with populations and characteristics similar to those within our service area. We are comfortable in every respect with these projected revenue levels. The APUC has also accepted our rate model, data and calculations as part of our certification evaluation. The APUC has approved our preliminary tariff structure, subject to verification prior to start up of operations.

We have spent considerable time and energy researching the operating costs associated with this type of venture. The cost of operations used in our modeling is consistent with costs for equivalent operations within other Alaskan utilities, utility operations in the "lower 48 states", and comparable rates for similar construction activities within Alaska. Construction costs are based on actual Alaskan rates, preliminary bid estimates from contractors, existing utility construction information from each community, and comparable estimates from utilities in the lower 48.

The detailed reports that follow reflect our estimates for Profit & Loss, Cash Flow, and Balance Sheet structure based on the most current information at hand. We have used higher values, when a range was available for materials and construction, to build in some contingency for variations in costs when construction bids for work and materials are obtained. The total cost for the LDC has also been computed as expended during the first year of operations, even though construction, and associated costs, will actually be taking place over a 5-year period of time. The case presented herein is considered a conservative approach with considerable room for improvement by simply controlling costs in

every area on an ongoing basis.

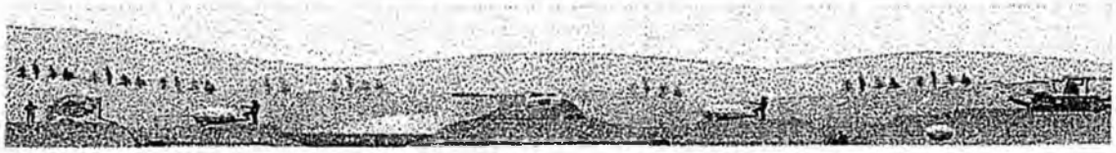
At this juncture it is important to note the attached financial plan reflects the activities of the company beginning in FY 2001. From now until then the company will be deeply involved in putting its long term financing package together. We anticipate utilizing the Alaska Industrial Development & Export Authority (AIDEA) and local community funding and bond sources for long term financing. AIDEA is a State agency that was created for the specific purpose of assisting private enterprise in funding capital-intensive projects that will contribute to the long-term well being of the residents of the State of Alaska. AIDEA provides a bonding mechanism in conjunction with local financial institutions for these projects. They offer attractive interest rates for non-rated enterprises and flexible payment plans. Due to the size of the project legislative authorization will needed required for AIDEA to participate in the project. Special approval from the State legislature due to the size of the project. This is not expected to be a problem in view of the wide level of support already given by the legislators from all areas of the State, regional civic organizations, and the communities in our service area.

Interim financing will be provided through conventional bank construction loans. This financing will be arranged through the financial institution assisting with the AIDEA long-term financing. All the assumptions regarding interest rates have been based on the plan as described herein.

7.1 Important Assumptions

As is the case with any start up enterprise, the assumptions behind the business' financial plan are most critical to understanding the overall plan. Please refer to Table 7.1 for some of the key assumptions of the plan. Equally important are the following items:

- As noted in the Sales Projection discussions, the financial plan is based on five business sectors, three of which (residential, small commercial and large commercial) are included in the tariff rate model.
- Short-term financing costs are based on discussions with team members, potential contractors and subcontractors, financial services industry sources, including conventional bank sources, investment bankers and brokerage houses.
- Long-term financing is based on utilizing the AIDEA funding over a 30-year term and at fixed interest rate.
- The cost of LPG is based on discussions with Amoco Canada, Ltd, Texaco, and independent brokers in Canada. A benchmark price of $0.3385 per gallon was selected. It was based on the two highest year average export



contract prices for propane from Alberta and British Columbia taken from the 1999 statistical review of the Propane Gas Association of Canada, Inc.

- The cost of transporting propane to tidewater in Prince Rupert is based on discussions with officials representing the Canadian National Railroad. The rate varies based on distance from Prince Rupert. We used a rate of $0.115 per gallon for transportation to Prince Rupert, BC, and loading onto barges.
- Local tariffs for offloading product in each community were derived from the tariff costs to move propane out of the Port of Prince Rupert, BC. These tariff charges are estimated at $0.02 per gallon.
- Barge costs to move propane from Prince Rupert, BC to each community are based on local quotes from Boyer Towing, Inc. based in Ketchikan, who presently move Propane between these two ports, on known costs to barge fuel oil to coastal communities in Southeast Alaska, and estimates from Foss Marine and SeaCon. The computed transportation cost is $0.06 per gallon.
- We have assumed a slow growth economy without major setbacks or recession. Historically, growth is Southeast Alaska has fluctuated between one and three percent over the past 25 years. It is forecast to be between 1.5 and 2% over the next 15 years by the State of Alaska.
- Propane/air facilities are based on accost estimates information provided by Smith & Norrington Engineering, and Prarielands Energy Company, and they include all equipment and materials, permitting, installation, site work and miscellaneous engineering and start up training.
- Land acquisition costs were based on known lease costs for comparable property within each community.
- We assume access to equity capital and financing sufficient to maintain our financial plan as shown in the accompanying table.

• Bond interest rate	= 8%
• Effective interest rate (Including finance cost)	= 8.16%
• Bond term	= 30 years
• Utility depreciation	= 50 year straight line
• IRS depreciation	= 20 year straight line
• Customer base growth rate	= 2%
• Inflation rate	= 3%
• Loss and unaccounted for gas	= 2%
• Income tax rate	= 35%
• Rate case	= year 3
• APUC allowed cumulative ROR	= 8.84%
• APUC allowed equity ROR	= 15%
• Equity % of company	= 10%

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- Residential facilities charge = $7.95/mo.
- Small Commercial facility charge = $9.95/mo.
- Large Commercial facility charge = $40/mo.

7.2 Key Financial Indicators

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The most important indicator in our plan is the market penetration achieved in each year of the plan. This indicator, in turn, is modified by individual customer consumption rates. If the customer base is not achieved then financial performance can be diminished unless it is offset by increased consumption. Our projected consumption rates are conservative, and are 14-24% less than rates of consumption projected by the AGA and the published residential customer consumption rate for ENSTAR. The utility modeling used in support of the APUC approved tariff rates and the projected market penetration has some built in buffering to account for year-to-year variation in market success. However, it is important to achieve a market success close to the 5-year projection in order to maintain the current financial projections.

In order to ensure that our market penetration rates are achieved we have devoted a considerable effort in developing an aggressive incentives and marketing program. This program will target early sign ups with financial and other incentives, described earlier in our plan that will help to ensure that we achieve or exceed our marketing goals. We will also be providing grant writing assistance to government, housing authority, electrical, and business entities that can qualify for subsidies, grants and low interest loans to convert to alternative fuels.

In addition to the high profile marketing campaign, we will manage operating expenses to make them the most efficient possible. Every element of cost in the operations will be scrutinized to make sure that the utility only expends what is needed to operate the utility. While major construction activities are underway, AIGC will rely on the contractor for substantial support through contract agreements, rather than direct staff positions. AIGC will build its workforce on an as needed basis, fully integrated with the construction phase of the local distribution systems in each community, and the training provided by Smith & Norrington. These management approaches will help ensure that O&M costs are minimized in our utility operations.

Finally we have already begun exploring the possibility of sharing utility billing operations in communities with existing utilities. Mr. John Magyar is facilitating this approach with the community of Ketchikan, and discussion has been held with Juneau and Sitka as well. This approach will minimize duplication of accounting and billing expenses in operating our utility. AIGC will implement

accounting practices in each community based on the most efficient combination of agreements and methods to minimize customer accounts servicing, accounting and billing expenses.

7.3 Break-even Analysis

AIGC is a regulated utility in which its price for gas service must be approved by the APUC. Any changes in that price must also be justified to and approved by the APUC. It is customary in the utility industry to project a tariff based on a 5-year projection of earnings and operations costs. The tariff is set at the year three (3) of the model projections for the approved tariff. After year three the tariff is reviewed, and then adjusted upward or downward to stay within the allowed profit earnings for the utility. Tariffs are then reviewed every three to five years by the APUC based on actual operating data, unless a utility requests an earlier review. As a consequence, the tariff model predicts year three as the break-even year, with losses incurred in the first two years and profits in the last two years. Our utility modeling supports our proposed tariff described earlier. In combination with our projected industrial and electrical contracts there is a positive net cash flow in all five modeled years.

AIGC has requested an initial tariff of $7.25 per mcf of gas sold. Our model actually predicts a cost of sales of $8.90 per mcf for our rate base year three. The APUC will conduct a final review of our model and data prior to our first commercial gas sales to approve the year three rate base to be used. We plan to defend our initial model results for the $8.90 per mcf rate during that final review based on current gas market prices.

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7.4 Projected Profit and Loss

The projected P&L statement included in this plan is based on the many assumptions already described herein. The revenue levels are dependent on the sales volume in each segment in each community. Expenses are our best estimates based on numbers provided by members of our project team and verified through independent industry sources wherever possible. Our plan clearly reflects the costs associated with a start up enterprise. Our estimates include the APUC requirement of cash assets to cover two years of O&M expenses. The summary Pro Forma Income Statement shows a rate of return for year one of 4.79%, which increases to 9.59% by year five. The cash flow shown indicates a positive cash flow in all years ranging from $3.5 million in year one to more than $11.6 million by year five.

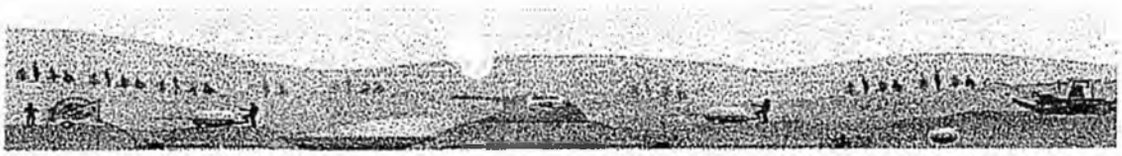
The utility plant cost is estimated at $116,000,000 for the seventeen communities. The components that make up this cost are shown in utility plant

in service section on the P&L statement. Almost $66,000,000 of the cost is from pipe in the ground and associated LDC costs. Approximately $30,000,000 is associated with the propane-air facilities, waterfront lands and leasehold improvements. The remaining funds ($20,000,000) cover a variety of start up and management costs for the Project. Finally, we have computed a working capital of approximately $2,805,000 to cover inventory, O&M and insurance costs for the rate base year.

7.5 Project Cash Flow

As stated earlier this is a start up operation, and will be in a build out mode, developing infrastructure for the next 5 years. At present gas sales are projected to commence in the year 2000, the starts up expenses for the time frame before start up of gas sales in the fall of 2001 are estimated at $11.2 million. In addition to these costs the APUC requires two years of operating expenses as reserve funds. Reserves of approximately $11 million will be needed to comply with this APUC stipulation to cover the first two years of operating costs and debt service for the utility. This includes the purchase of start up gas inventories needed in each community. This amounts to an overall start up capital requirement of approximately $22.5 million, of which $11 million is held in reserve to comply with terms and conditions of our Certificate of Public Convenience and Necessity.

The projected cash flow is also shown in P&L statement by community. There is a positive cash flow through all years of operation. However, Haines and Skagway show negative cash flow in year one, while Angoon shows a negative cash flow for all five years. We expect to manage cash flow over the next three years by rising in excess of $20 million of new equity and placing long term financing for the project in late 2001. For approximately 80% of the over all project cost.



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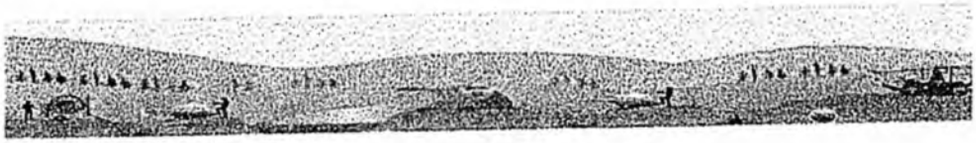

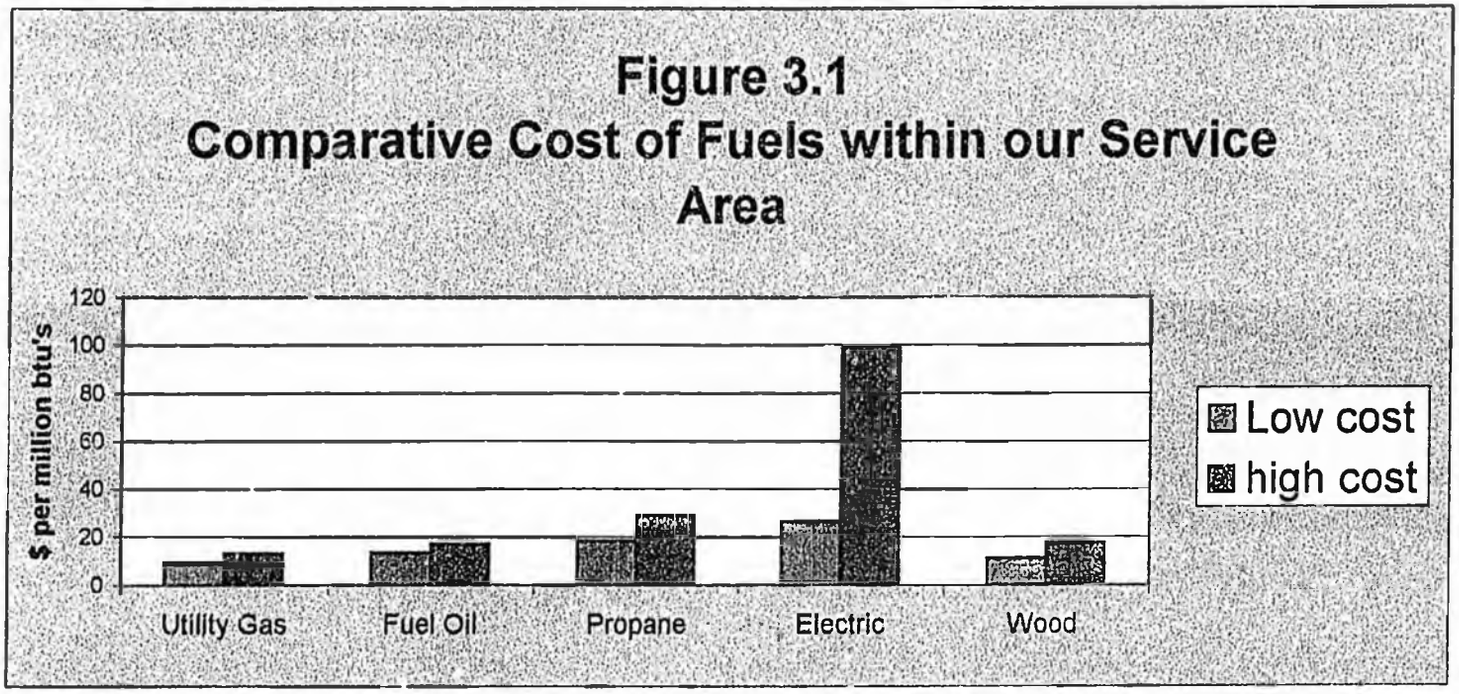

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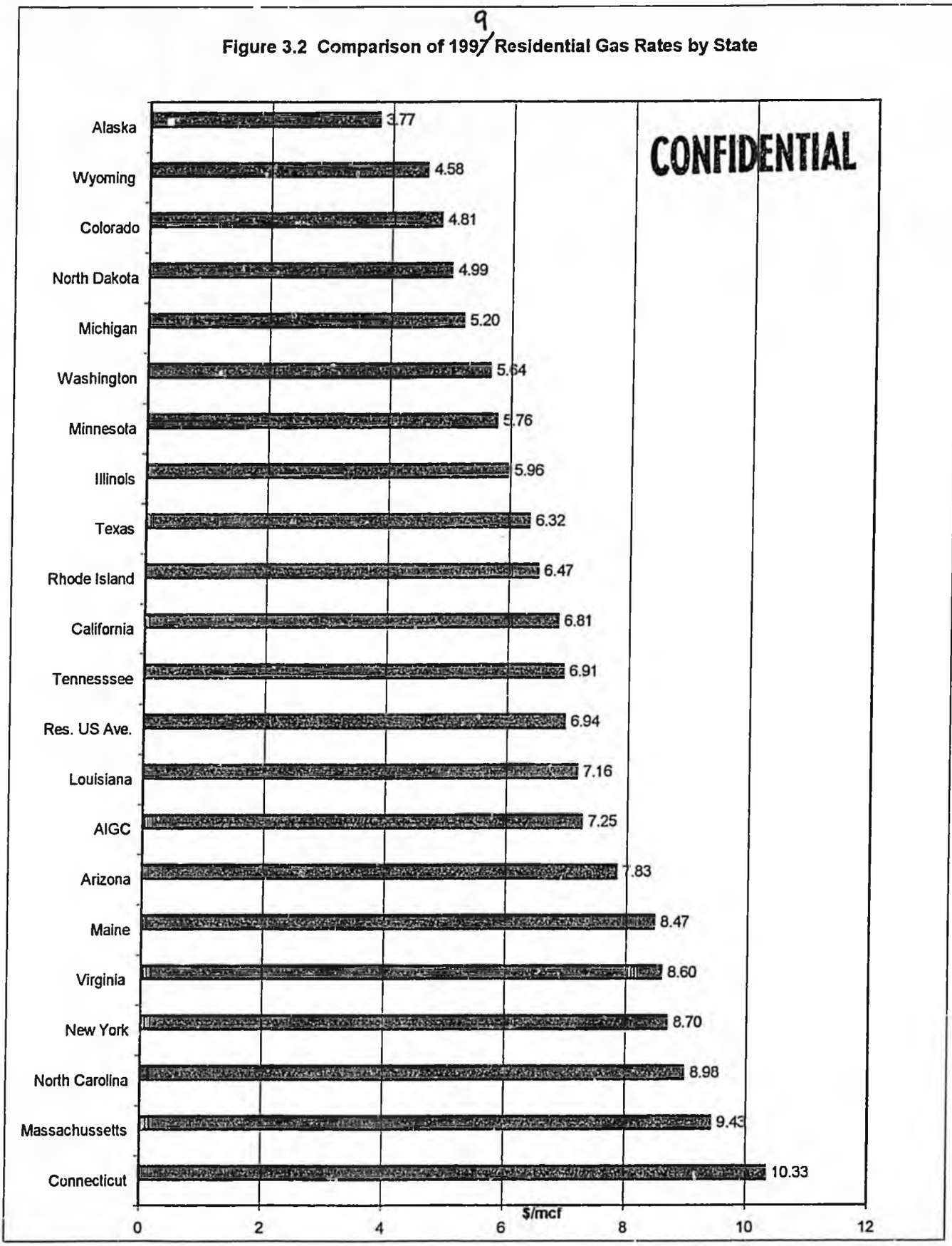
Figure 3.2 Comparison of 1997 Residential Gas Rates by State



Appendix II

Figure 4.1
Potential Electrical Load Market within Our Service Area

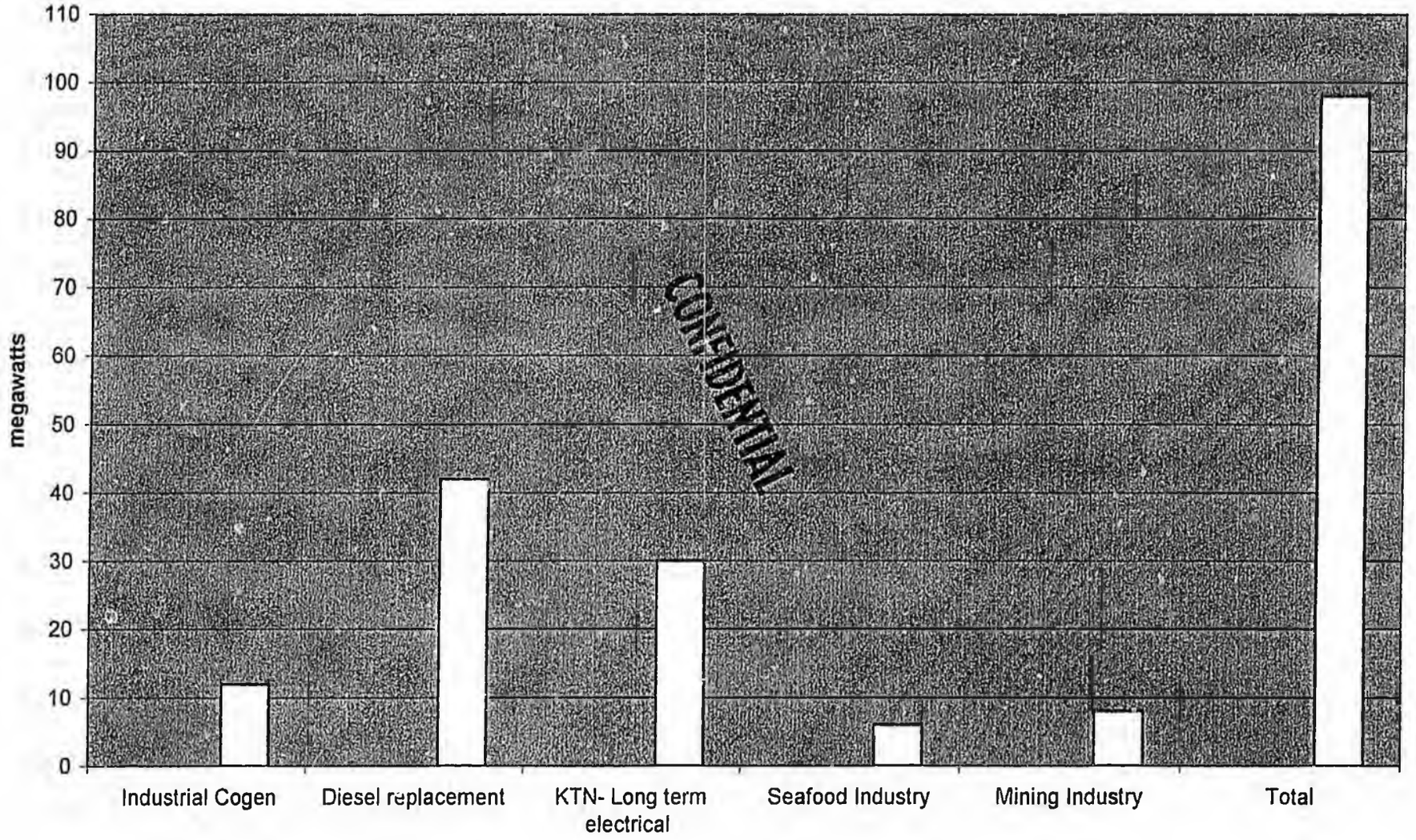


Figure 4.2
Cost to Operate a Gas Clothes Dryer in Anchorage and Our Service Area Compared with an Electric Clothes Dryer at Representative Electric Rates in Our Service Area

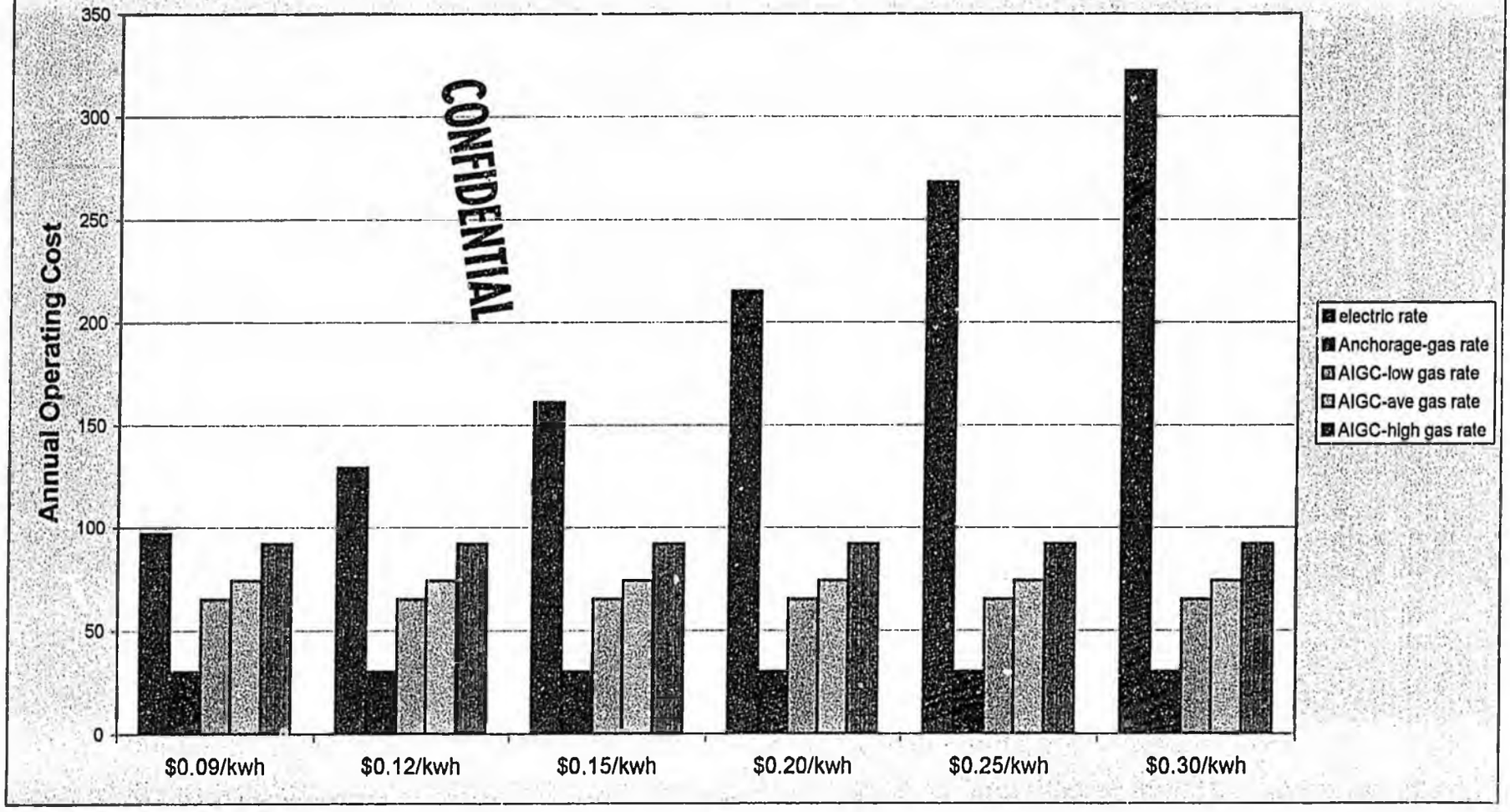


Figure 4.3
Comparative Cost to Operate a Hot Water Heater within Our Service Area

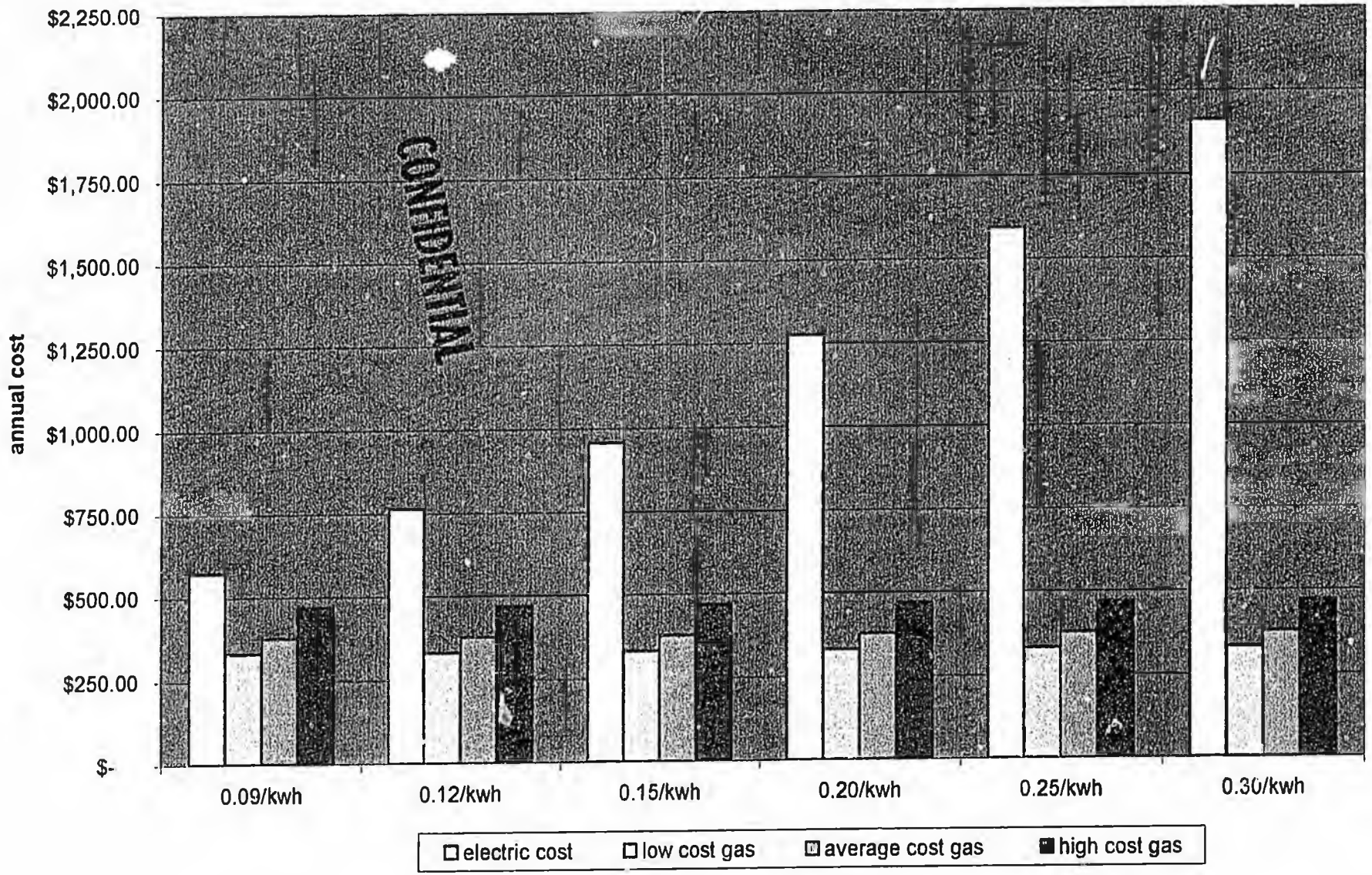
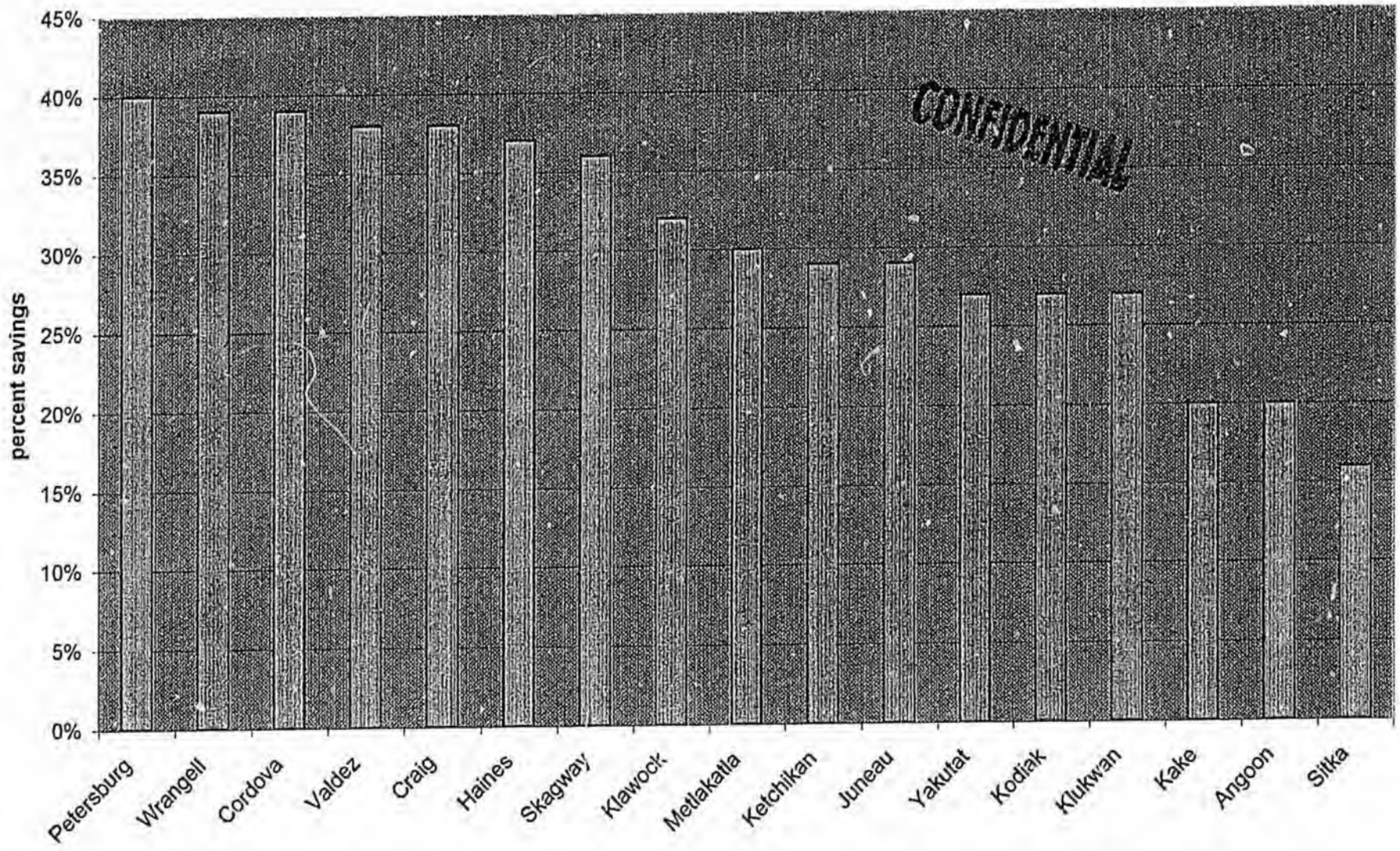
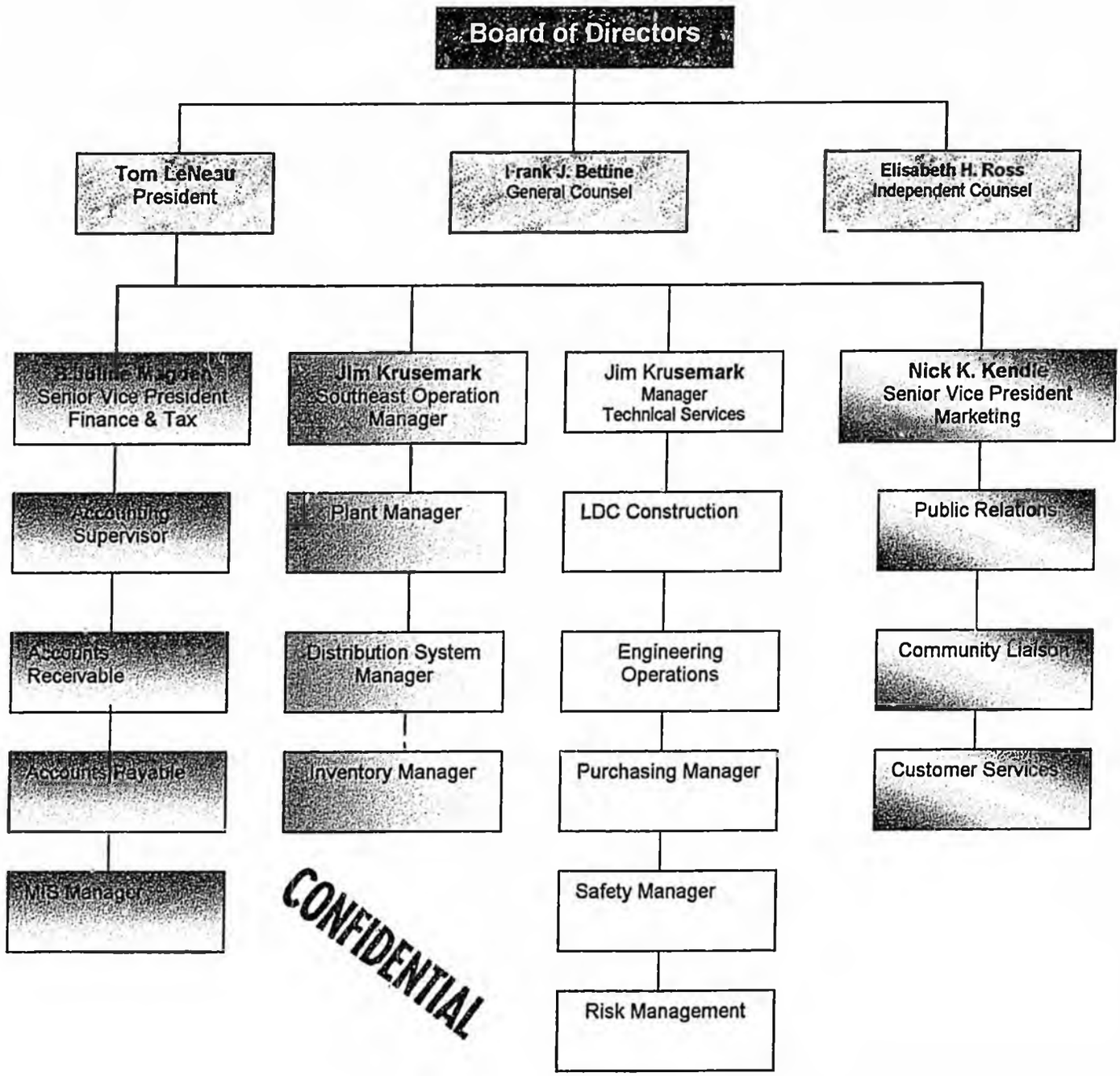


Figure 4.4
Percent savings with Utility Gas Compared to Fuel Oil for Home Heating



Alaska Intrastate Gas Company Board of Directors



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Appendix III

ALASKA INTRASTATE GAS COMPANY

Seventeen Community Composite Tariff Rate ($8.90/mbtu residential)

Projected Profit and Loss

	Year 3
Operating Revenue:	
Gas Sales	$104,596,027
Meter Charges	3,003,776
Total Operating Revenues	107,599,803
Gas Purchases	75,086,497
Gross Profit	32,513,306
Gross Profit %	30.22%
Operating Expenses:	
Operations & Maintenance	4,960,221
Insurance	865,696
Depreciation & Amortization	2,316,165
Total Operating Expenses	8,142,082
Profit before Interest & Taxes	24,371,224
Interest Charges	8,190,594
Income Tax Provision, current	4,447,236
Income Tax Provision, deferred	1,215,985
Net Profit (Loss)	$10,517,410
Net Profit/Sales%	9.77%

Net Profit (Loss)	$10,517,410
Add back:	
Depreciation & Amortization	2,316,859
Income Tax Provision, deferred	1,215,985
Non-reserved portion of Contributions in Aid to Construction (65%)	134,875
Subtotal	14,185,129
Less: Bond Principle	1,073,880
Net Cash Flow (Deficit)	$13,111,249

	Utility Plant in Service
LDC	$65,551,591
Propane/air Plant, Dock, Storage, Piping	30,510,421
Capitalized Start up Costs	19,140,807
Fiber Optic Cable	622,941
Total	$115,825,760

Total	$1.132.032

CORDOVA

Composite Tariff Rate ($8.90/mbtu residential)

Projected Profit

	Year 3
Operating Revenue:	
Gas Sales	$5,614,094
Meter Charges	102,233
Total Operating Revenues	5,716,327
Gas Purchases	4,218,655
Gross Profit	1,497,672
Gross Profit %	26.20%
Operating Expenses:	
Operations & Maintenance	205,030
Insurance	42,436
Depreciation & Amortization	115,705
Total Operating Expenses	363,171
Profit before Interest & Taxes	1,134,501
Interest Charges	408,891
Income Tax Provision, current	193,219
Income Tax Provision, deferred	60,745
Net Profit (Loss)	$471,647
Net Profit/Sales%	8.25%

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Net Profit (Loss)	$471,647
Add back:	
Depreciation & Amortization	115,705
Income Tax Provision, current	60,745
Non-reserved portion of Contributions in Aid to Construction (65%)	7,280
Subtotal	$655,377
Less: Bond Principle	53,610
Net Cash Flow (Deficit)	$601,767

Utility Plant in Service

LDC	$3,143,051
Propane/air Plant, Dock, Storage, Piping	1,753,600
Capitalized Start up Costs	827,000