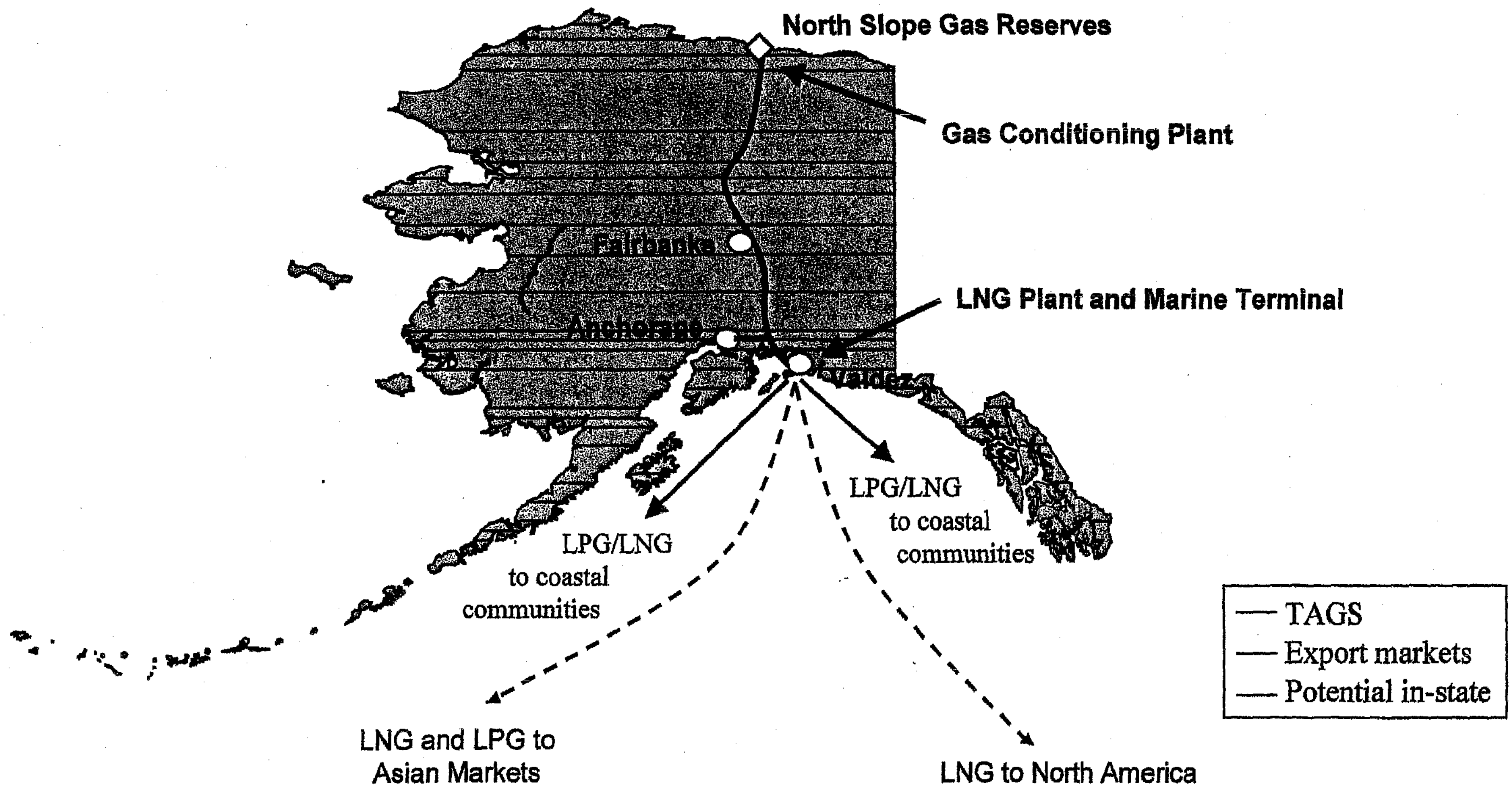
Presentation on the TAGS Small Project

February 2002

Yukon Pacific Corporation

A Business Unit of CSX Corporation

TAGS Route Map



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Cover Letter for YPC presentation on the TAGS Small Project configuration

Introduction

Yukon Pacific Corporation is evaluating a configuration of the Trans-Alaska Gas System that is smaller than YPC's current design basis and incorporates the sale of ethane and propane as separate products. YPC has prepared a powerpoint presentation regarding the TAGS Small Project. This letter is intended to accompany the presentation and provide supplement information.

The TAGS Small Project consists of a 7 million metric ton per year (MTA) LNG project with the addition of ethane extraction for an in-state petrochemical industry and propane extraction for sale as liquefied petroleum gas (LPG) to Asia. The initial in-house economic runs for this configuration are producing encouraging results.

Project size and ramp-up

The TAGS Small Project, as currently envisioned, requires a flow rate of 1.4 bscfd.

A premise of YPC's Small Project is that capacity ramp-up can be avoided by serving five relatively small markets simultaneously. These five markets are: 2 MTA of LNG to North America; 5 MTA of LNG to Asia; 60,000 barrels per day of ethane for feed to an in-state petrochemical industry; 75,000 barrels per day of propane as LPG to Asia and 50 mmscfd of utility grade gas for in-state use.

Considering the volumes for the Canadian pipeline proposals, there should be little issue with the assumption that 2 MTA (280 mmscfd) of gas can be placed in the North American market if competitively priced. The 5 MTA of LNG to Asia is about two thirds the size of the 7-8 MTA "market entry project" discussed by the Alaska North Slope LNG Project during testimony before the Alaska Legislature in 2001. The quantity of ethane is approximately the same as feedstock rates to petrochemical projects being proposed for Fairbanks and Alberta. The Asian LPG market appears to be strengthening as evidenced by the upward trend of LPG price in Japan over the last 10 years.

The TAGS pipeline passes through Fairbanks and within 140 miles of the gas infrastructure in South-central Alaska. The 50 mmscfd value of in-state gas use is a somewhat arbitrary value for the combined gas usage of communities along the TAGS pipeline route plus potential sales to Alyeska Pipeline Service Company. The capital costs for the TAGS Small Project do not include any gas sales via a spur line to South-central Alaska although this clearly is a potential market. The size of the TAGS Small Project is small enough that in-state gas usage represents a significant portion of total pipeline flow. The project economics will be enhanced if the actual in-state gas demand exceeds the 50 mmscfd value.

The TAGS Small Project is based upon installation of a 30-inch pipeline. This pipeline is oversized for the 1.4 bscfd throughput required to serve the markets mentioned above. The pipeline capacity can be expanded by about 50 percent with the addition of pipeline compression. The benefits of such an expansion are not included in the economic information in the presentation.

Impact on oil production

A premise of the TAGS Small Project is that hydrocarbons currently contained in the miscible injectant stream at Prudhoe Bay will be made available to a gas project. The Prudhoe Bay Unit has stated that the production of miscible injectant for the Prudhoe Bay Miscible Gas Project may cease by around the year 2010. The PBU has also stated that the CO2 and butane byproducts from the conditioning plant of a gas project can be blended into the MI thereby minimizing or negating impacts on the PBMGP due to a gas project.

A material balance around the conditioning plant proposed for the TAGS Small Project configuration shows that use of the CO2 and butane byproducts can keep the MI project approximately 90% whole on injecant volume. The adverse impact on the PBMGP is expected to be negligible since: 1) this project will be nearing the end of its life by the start-up of the TAGS Small Project, and 2) the byproducts from the gas conditioning plant can be used to maintain the volume of MI regardless of the project life.

Oil loss attributed to a major gas sale appears to be tied to the amount of gas removed from the reservoir and the corresponding drop in reservoir pressure. One would expect significantly less adverse impact on oil with a gas sale of 1.4 bscfd as compared to the 4+ bscfd volumes discussed for the Canadian pipeline projects.

Oil production at Prudhoe Bay is currently constrained by the gas handling capacity of the production facilities. One would anticipate an increase in near term oil production if the rate of field gas off-take were increased. A premise of the TAGS Small Project configuration is that field gas off-take will be increased with the additional gas disposed of via the gas project.

The increase in crude oil production corresponding to the increase of gas off-take will depend upon the marginal gas oil to ratio of the field. The incremental increase of blendable NGL to TAPS should be roughly proportional to the increase in the rate of gas off-take. No credit has been given to the TAGS Small Project for incremental increases of either crude oil or blendable NGL. It is assumed that the benefits of incremental oil production will be addressed in the negotiation of wellhead gas price.

The impacts on oil production due to the TAGS Small Project have not been included in the economic information in the presentation.

Economic assumptions and models

The information in the presentation is based upon a project-wide process simulation; capital and operating costs prepared for YPC by WillBros, Michael Baker Jr and Kellogg Brown & Root; and YPC in-house software designed to parse capital investments by year of construction. YPC has structured our in-house software to interface directly with the front end of a comprehensive economic model developed for YPC by CS First Boston.

The results of economic models are, of course, dependent upon the assumptions used for the various economic parameters and prices. We believe that our capital cost assumptions are generally conservative in that they tend to overstate the costs. We have run our in-house economic model using product pricing assumptions that we believe are moderate to conservative. Our economic results show that the YPC Small Project configuration returns an IRR near the thresholds stated as acceptable by various parties evaluating a major gas project.

Questions and additional information

Questions regarding this letter or the power point presentation should be sent to:

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Yukon Pacific Corporation

- More than 18 years spent developing a gas project from Alaska's North Slope
- Major permits in place
- State-of-the-art analytical tools for pipeline design
- Detailed economic models

TAGS Small Project is a New Concept

- Concept developed during the 4th quarter of 2001
- Promising economics, but in process of verifying premises.

Going Smaller Instead of Bigger

- TAGS current design basis: 36-inch pipeline for up to 18 MTA of LNG (2.5 bscfd) plus in-state gas sales

- TAGS Small Project basis: 30-inch pipeline for 7 MTA of LNG plus ethane and propane sold as separate products; the pipeline can be expanded in the future

Big Projects Gain Economies of Scale, But Make Entry into Market More Difficult

	bscfd
ANGTS	2.5
Highway Project	4.0
ANGTS - Revised	5.2
Highway Project - Revised	6.0
YPC Small Case	1.4

TAGS Small Project - Basic Concept

- Preferentially market the most valuable gas hydrocarbons on the North Slope (propane and ethane).

- Use a single pipeline to transport a mix of hydrocarbons for separation and sale to various end markets.

- Serve multiple small markets simultaneously thereby enhancing economics by avoiding capacity ramp-up.

Three Products to Six Markets

- Methane
  - LNG to Asia
  - LNG to North America
  - Utility grade gas within Alaska
- Ethane (extract from pipeline gas)
  - Feed to Alaskan petrochemical industry
- Propane (extract in Valdez)
  - LPG (liquefied petroleum gas) to Asia
  - LPG to Alaskan communities

Relative Value of North Slope Reserves
(From High to Low Value)

- Crude Oil and Condensate
- Natural Gas Liquids
- Propane
- Ethane
- Methane (Natural Gas)

Market Quantities

	mmscfd	1000 Bbl/day	Million tons/yr
In-state gas	50		0.36
LNG to N. America	280		2
LNG to Asia	710		5
Ethane feedstock		60	1.25
Propane as LPG (*)		75 / 50	2.21
Total			10.8

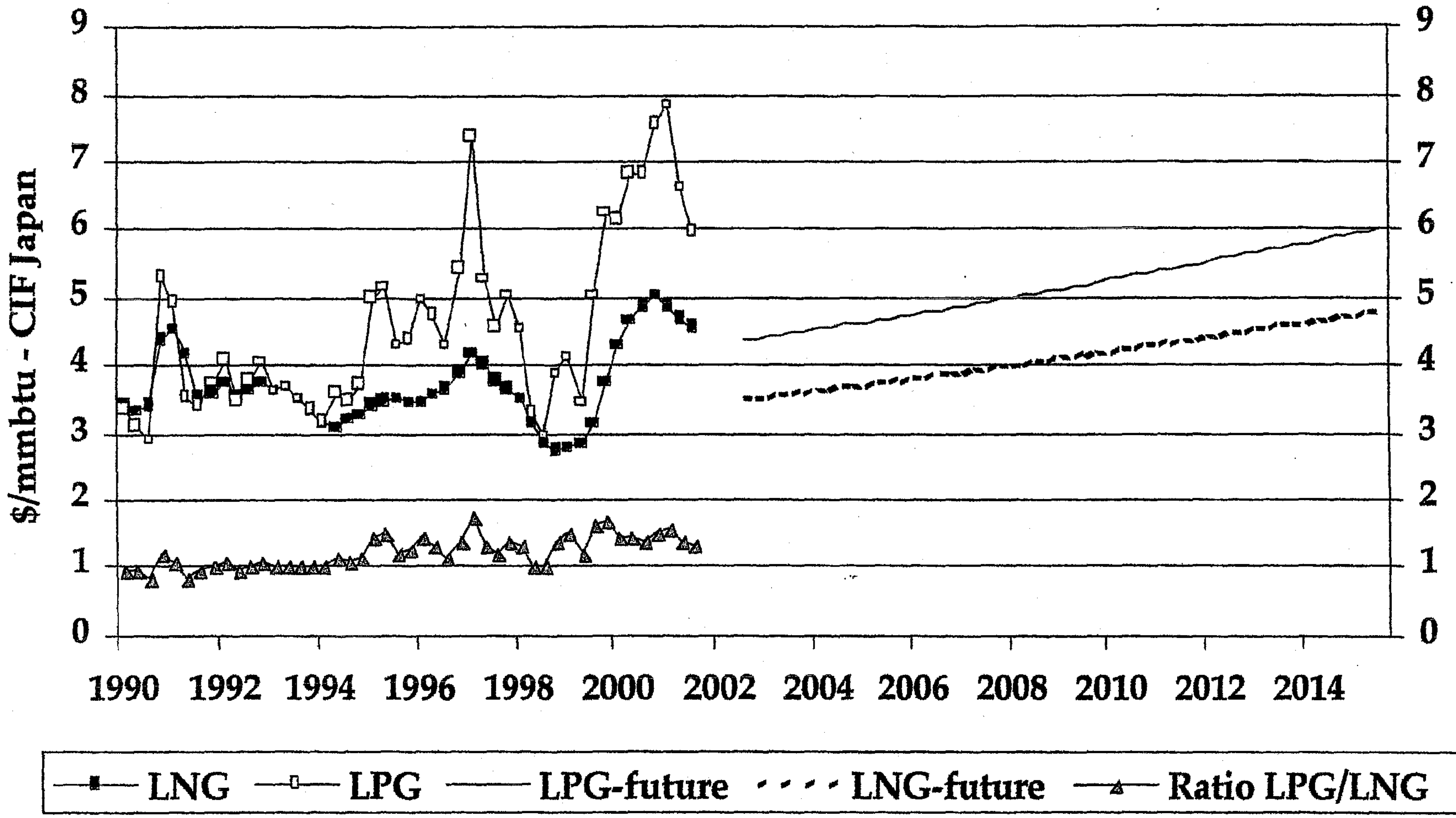
* LPG rate assumed to decline from 75,000 to 50,000 Bbl/day

Why is propane preferable to methane?

- Heating value of propane is 2.5 times that of methane.
- LPG commands a 125% price premium to LNG sold to Japan.
- Each standard cubic foot of propane transported by pipeline will provide more than 3 times the revenue of methane.
- Propane is more easily handled than LNG.

LNG & LPG Prices

(Reference for historical: Sumitomo Corp.)



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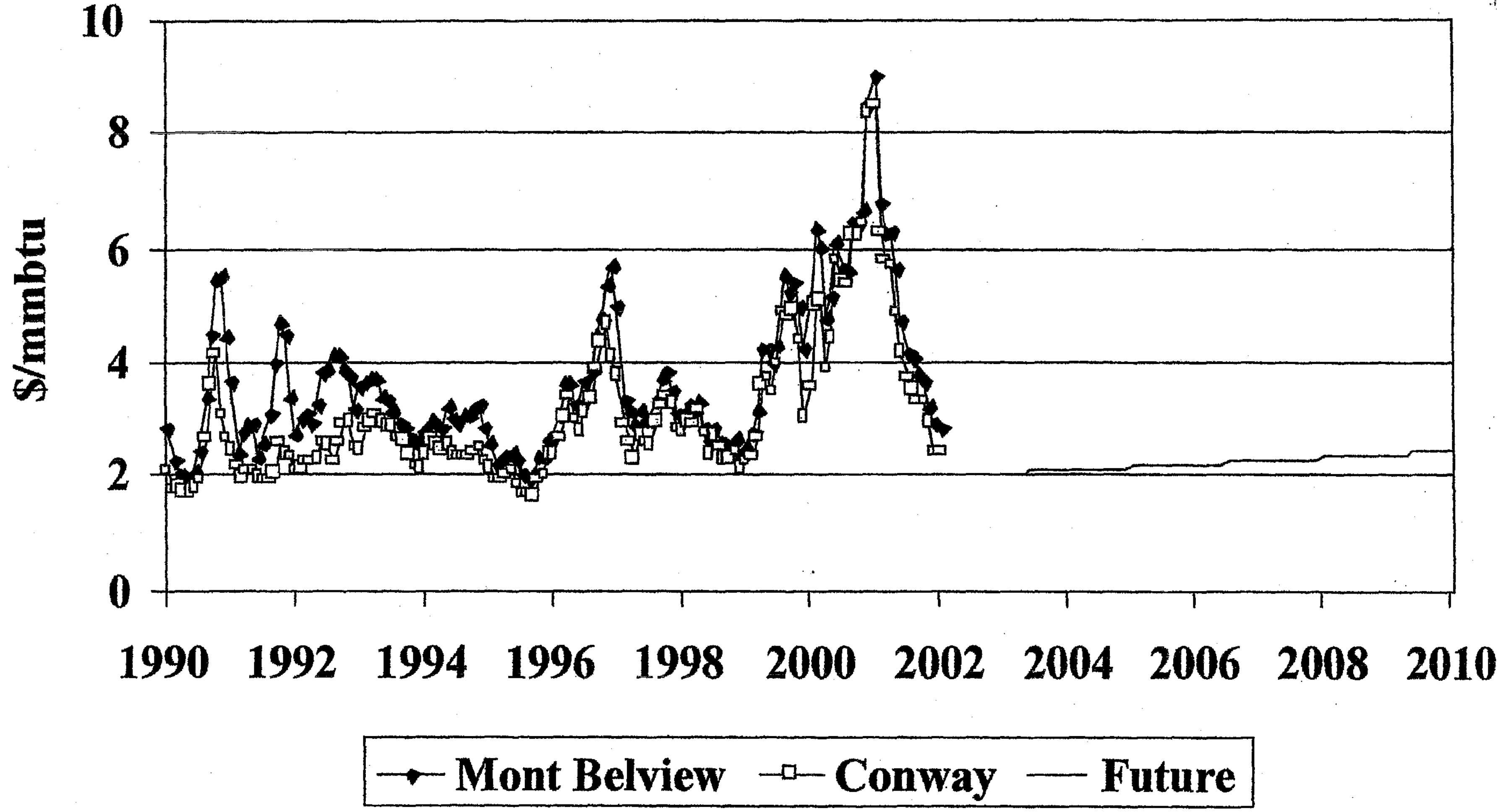
Why is ethane preferable to methane?

- Heating value of ethane is 1.7 times that of methane.
- Ethane is easily removed along with propane.
- Ethane can be sold in-state thereby providing a value-added product for a petrochemical industry in Alaska while minimizing project capital cost.

Ethane Prices in Lower 48

(Reference for historical: Platts)



Sources of gas

- NGL rich (raw) field gas
  - Assumed source is from Prudhoe Bay
  - Any gas rich in ethane and propane will do

- Miscible injectant at Prudhoe Bay
  - Central Gas Facility concentrates ethane and propane from 8.5 bscfd of field gas
  - Need for MI expected to diminish after 2010
  - CO_2 and butane byproducts from TAGS gas conditioning can supplement MI

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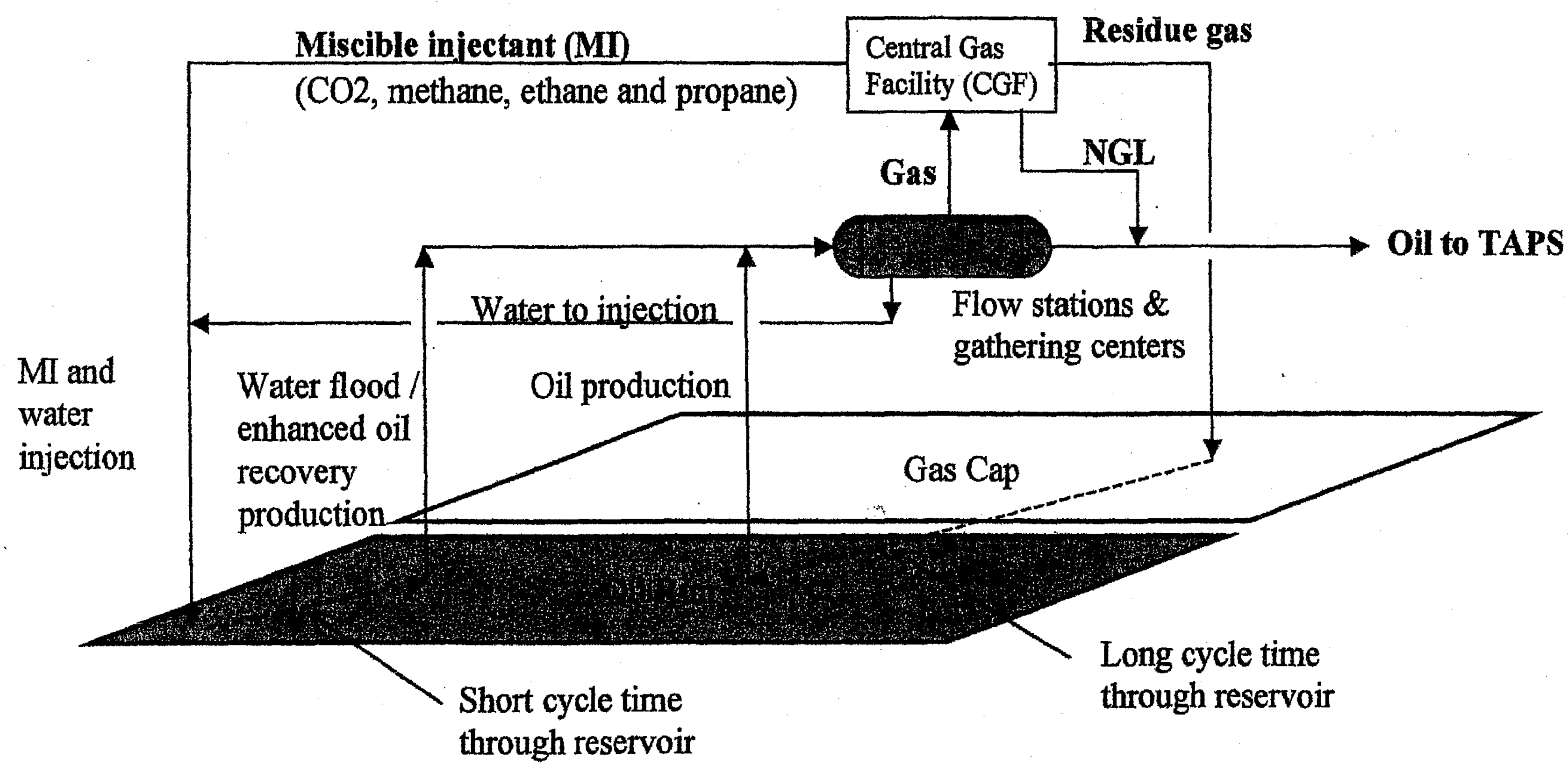
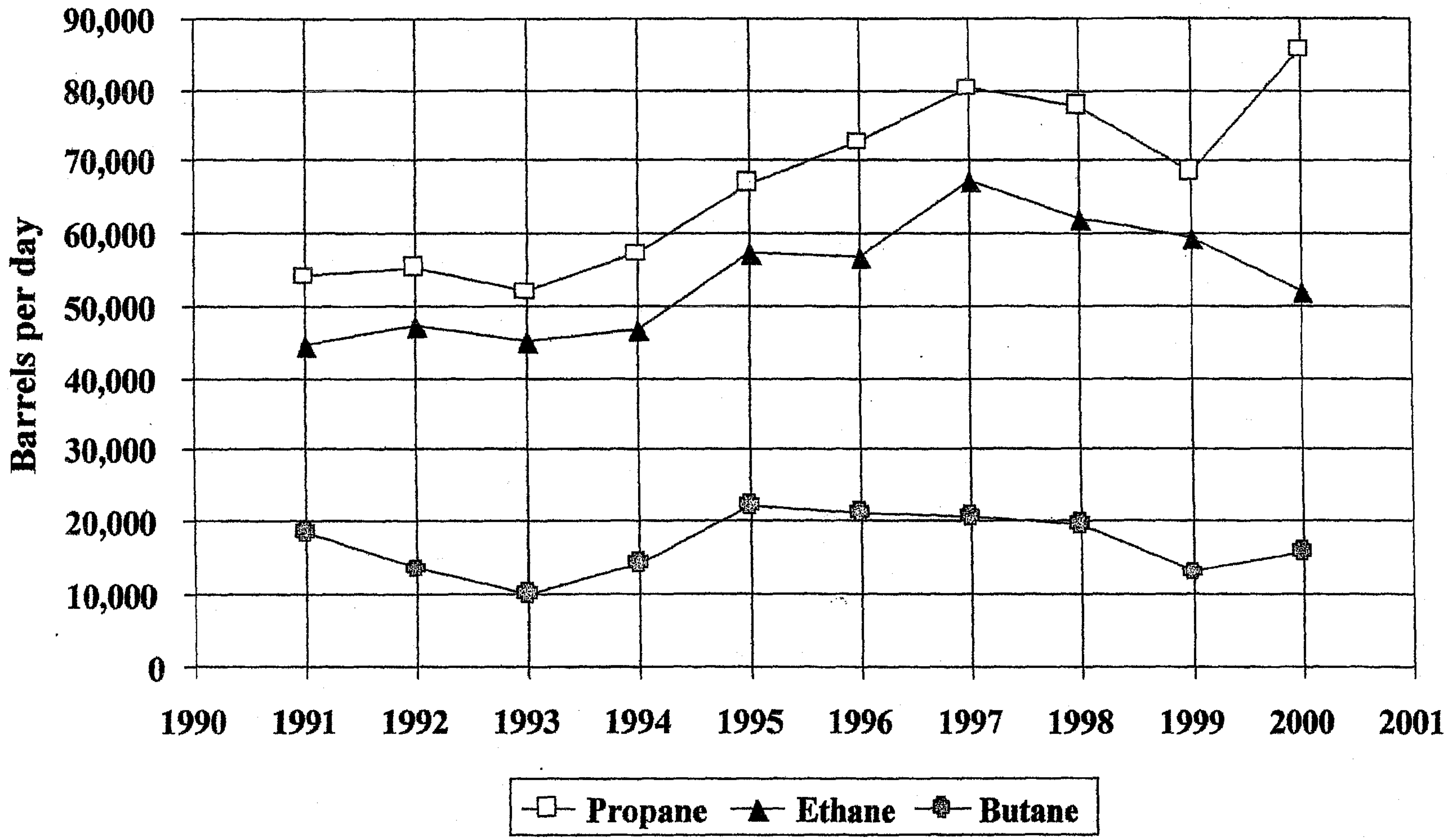
Over time, ethane and propane concentrations in the Prudhoe Bay miscible injectant have increased due to recycling through the reservoir



Liquids injected as MI at Prudhoe Bay

(Reference: Alaska Oil & Gas Conservation Commission)



Calculation of Stabilizer Overhead

	Total MI 2000	CGF Residue	Stabilizer Overhead Unadjusted	Stabilizer Overhead Adjusted
mmscfd	546	96	450	
Mole %				
CO_2	20.76	11.55	22.72	22.69
Nitrogen	0.00	0.62	-0.13	0.00
Methane	36.13	80.74	26.61	26.58
Ethane	14.96	5.14	17.05	17.03
Propane	23.86	1.56	28.62	28.58
I-butane	1.77	0.12	2.12	2.12
N-butane	2.09	0.19	2.50	2.49
Pentane+	0.43	0.08	0.50	0.50
Total	100.00	100.00	100.00	100.00

References:

1 – Total MI from Annual Reservoir Surveillance Report, PBU, Jan. through Dec. 2000.

2 – CGF residue gas composition and 450 mmscfd overhead volume from AOGCC hearings on PBU, 1995.

Gas Sources - Composition

	Stabilizer overhead	Raw field gas	Available mmscfd	Available bbl/day	Destination
mmscfd	450	1,500			
Mole %					
CO_2	22.69	12.07	283		MI
Nitrogen	0.00	0.57	9		Gas/LNG
Methane	26.58	76.11	1,261		Gas/LNG
Ethane	17.03	6.11	168	106,900	LNG/petrochem
Propane	28.58	3.07	174	114,200	LPG
I-butane	2.12	0.41	16	12,200	MI
N-butane	2.49	0.83	24	17,700	MI
Pentane+	0.50	0.83	15	12,700	NGL to TAPS
Total	100.00	100.00	1,950		

References:

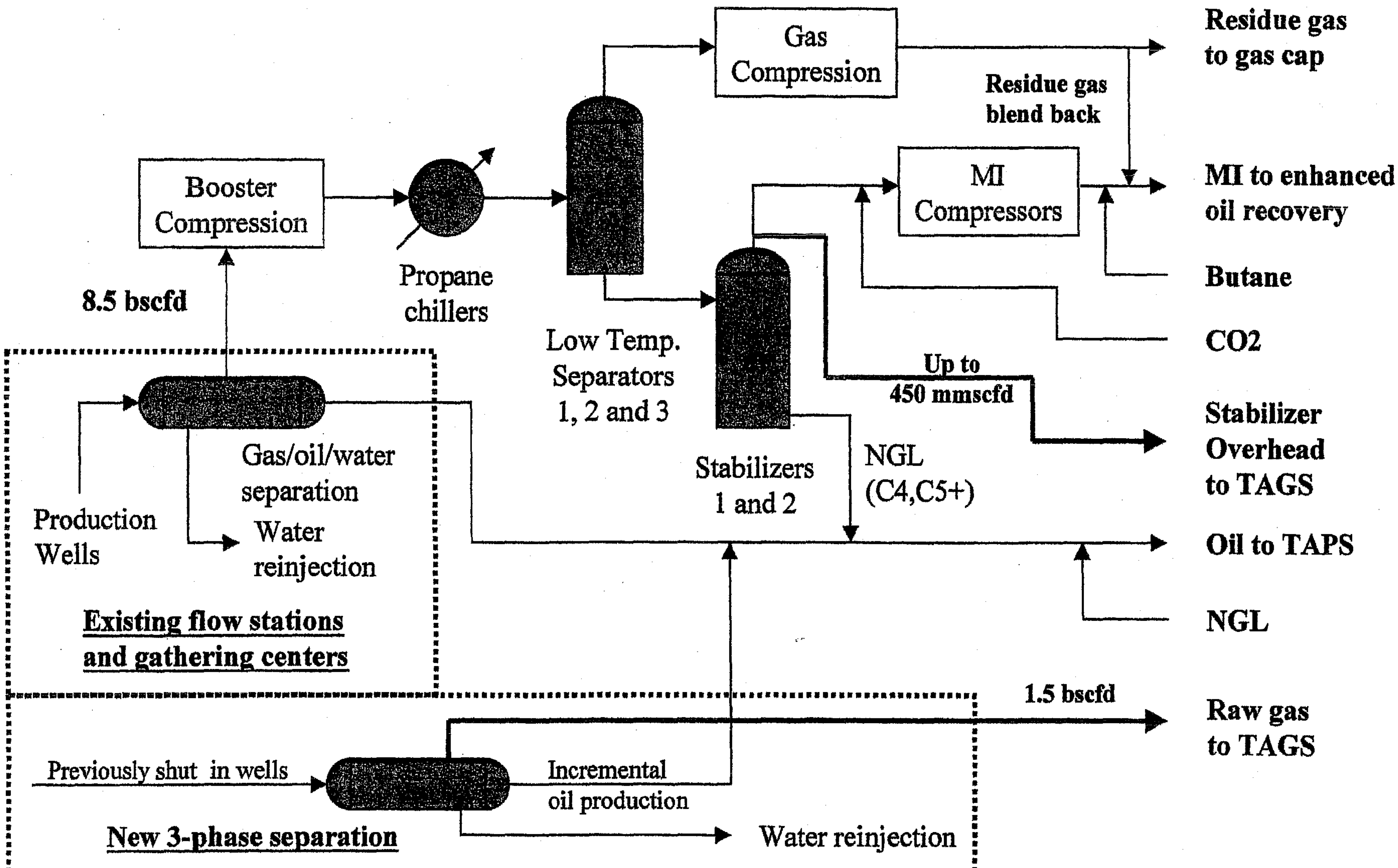
1 – Raw gas composition from AOGCC hearings on PBU, 1995.

Liquids Available from Central Gas Facility

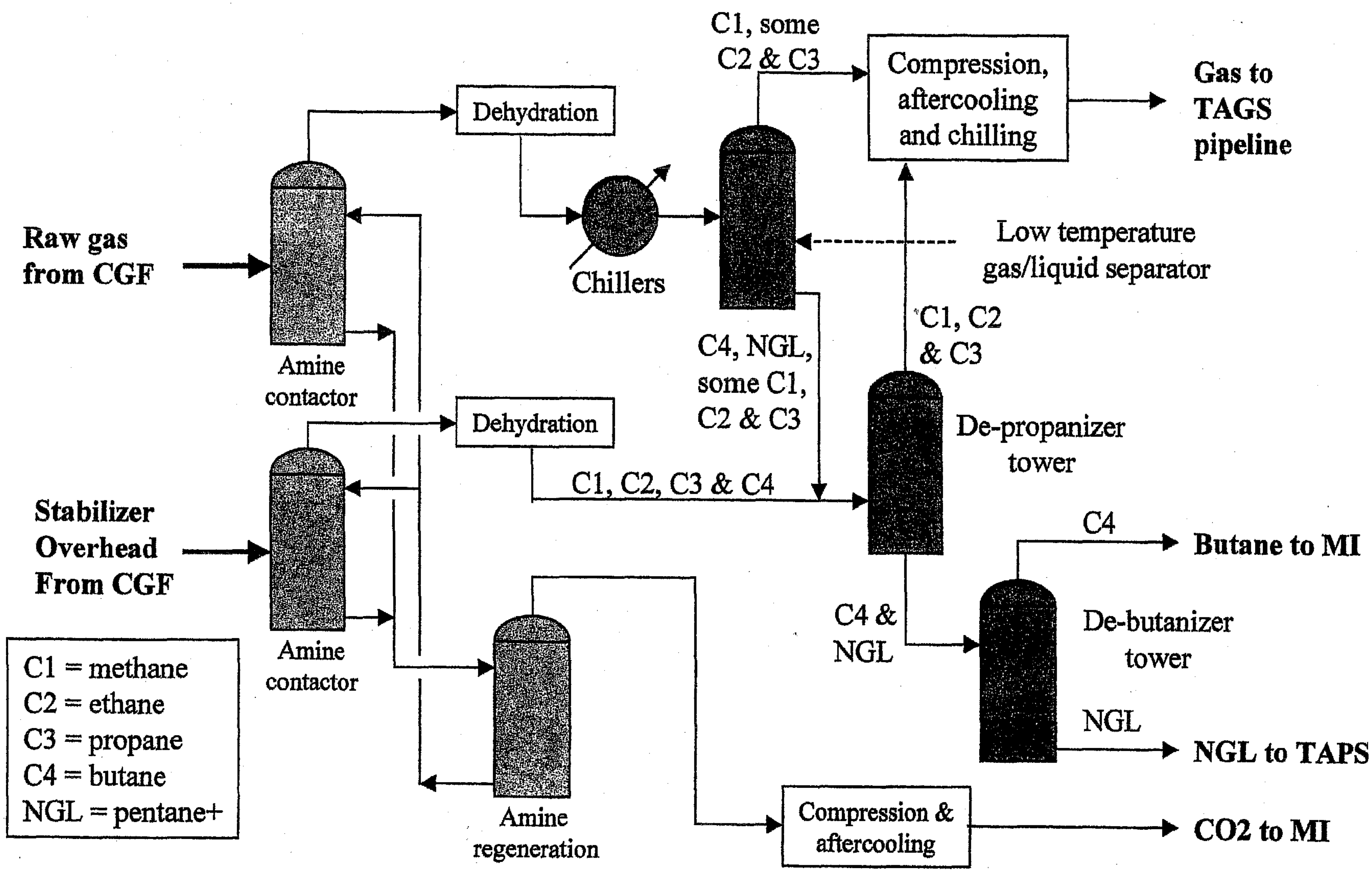
	Stabilizer overhead	Raw field gas	Total
mmscfd	450	1,500	
<u>Bbl/day</u>			
Ethane	48,700	58,200	106,900
Propane	84,100	30,100	114,200

How do we obtain these products with minimal impact on oil production?

Central Gas Facility – modified for TAGS



TAGS - Gas Conditioning Plant



PBU Comment on a Major Gas Sale

"…That conditioning plant may also reject some butanes, so the CO2 and butane, if that were coming back, may be able actually to help make up for any loss in MI supply due to the need to increase enrichment, due to pressure decline, or due to the loss of the gas stream itself, so in – reality, the impact could range from small to none…"

ARCO, 1991

Reference: AOGCC hearing, PBU – Miscible Gas Project Expansion, 11/20/91

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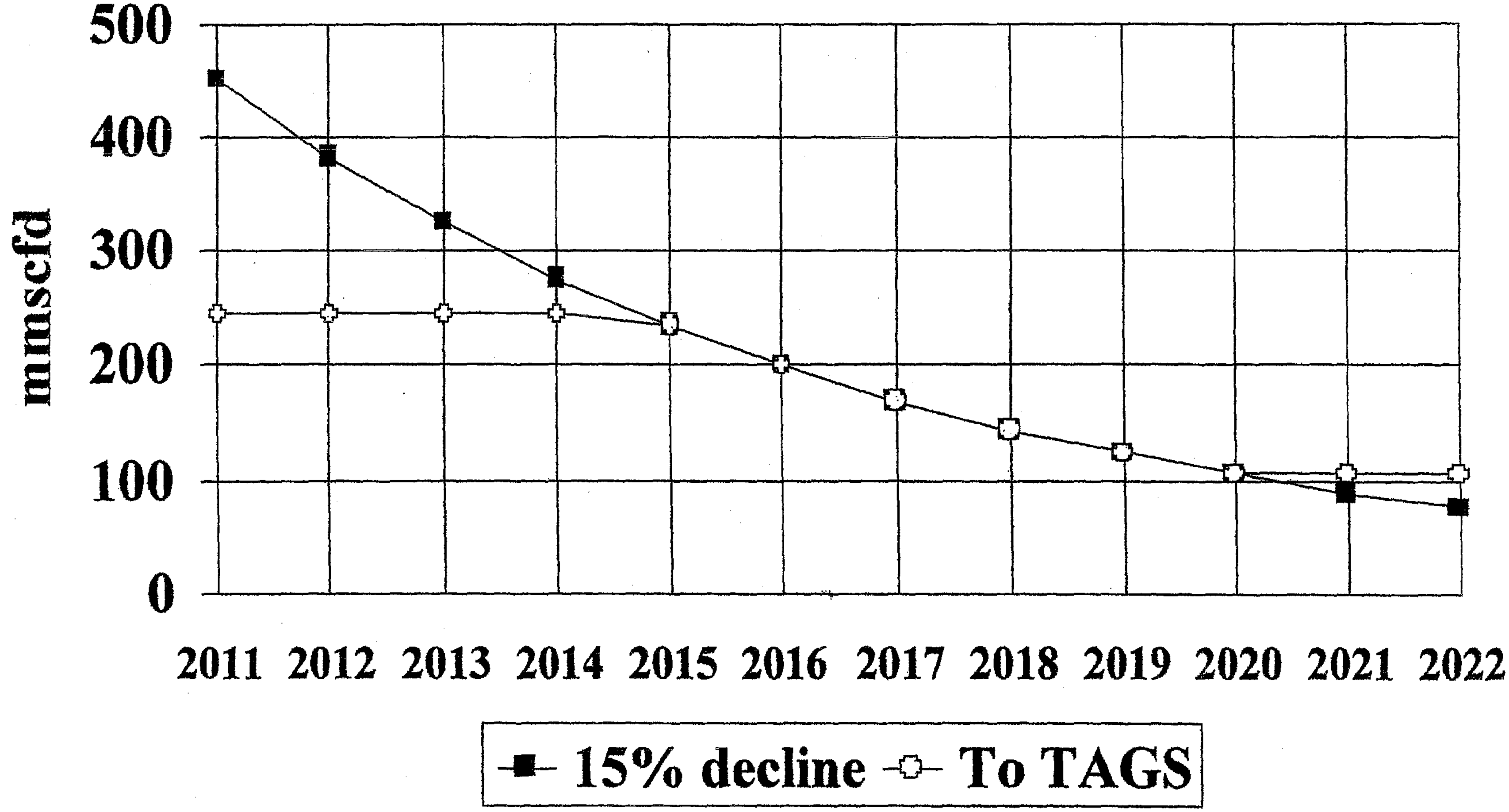
Stabilizer Overhead Flow Rate

(Availability of ethane and propane assumed to drop over time)



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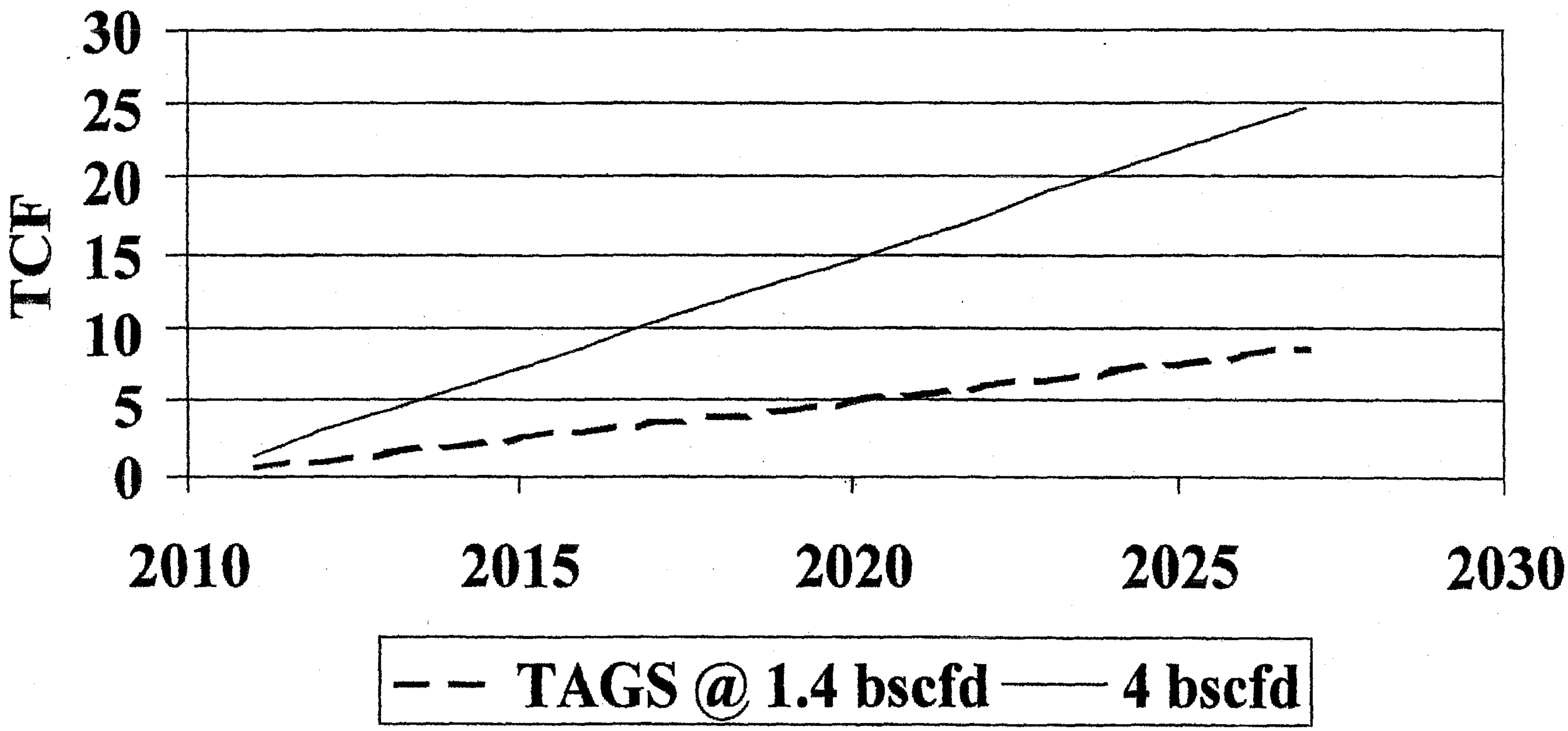
Example: Re-blending of MI

	Excess Overhead	CO2	Butane	CGF Residue	New MI	MI 2000
mmscfd	205	238	31	18	492	546
MMP(*)	2623	4239	-1064	8361	3256	3259
Mole %						
CO2	20.69	100.00		11.55	58.35	20.76
Nitrogen	0.00			0.62	0.02	0.00
Methane	26.58			80.74	14.01	36.13
Ethane	17.03		0.01	5.14	7.27	14.96
Propane	28.58		7.21	1.56	12.40	23.86
I-butane	2.12		33.55	0.12	2.99	1.77
N-butane	2.49		57.23	0.19	4.63	2.09
Pentane+	0.50		2.00	0.08	0.34	0.43
Total	100.00	100.00	100.00	100.00	100.00	100.00

* MMP = minimum miscibility pressure

Larger Gas Projects Increase the Potential for Impact on Oil Production (Cumulative Reservoir Voidage)



Potential Gain In Oil Production

- Crude oil production at Prudhoe Bay is constrained by the ability to handle gas produced with the oil.

- Gas projects could increase crude oil production - example
  - Current Prudhoe Bay gas/oil ratio is 16,000 scf/bbl
  - Assume marginal GOR of 45,000 for new wells
  - Assume 1.5 bscfd raw gas per YPC Small Project
  - Theoretical increase in crude oil = 33,300 bpd

    (1,500,000,000 / 45,000 = 33,333)

- Recovered NGL (C5+) to TAPS = 12,000 bpd

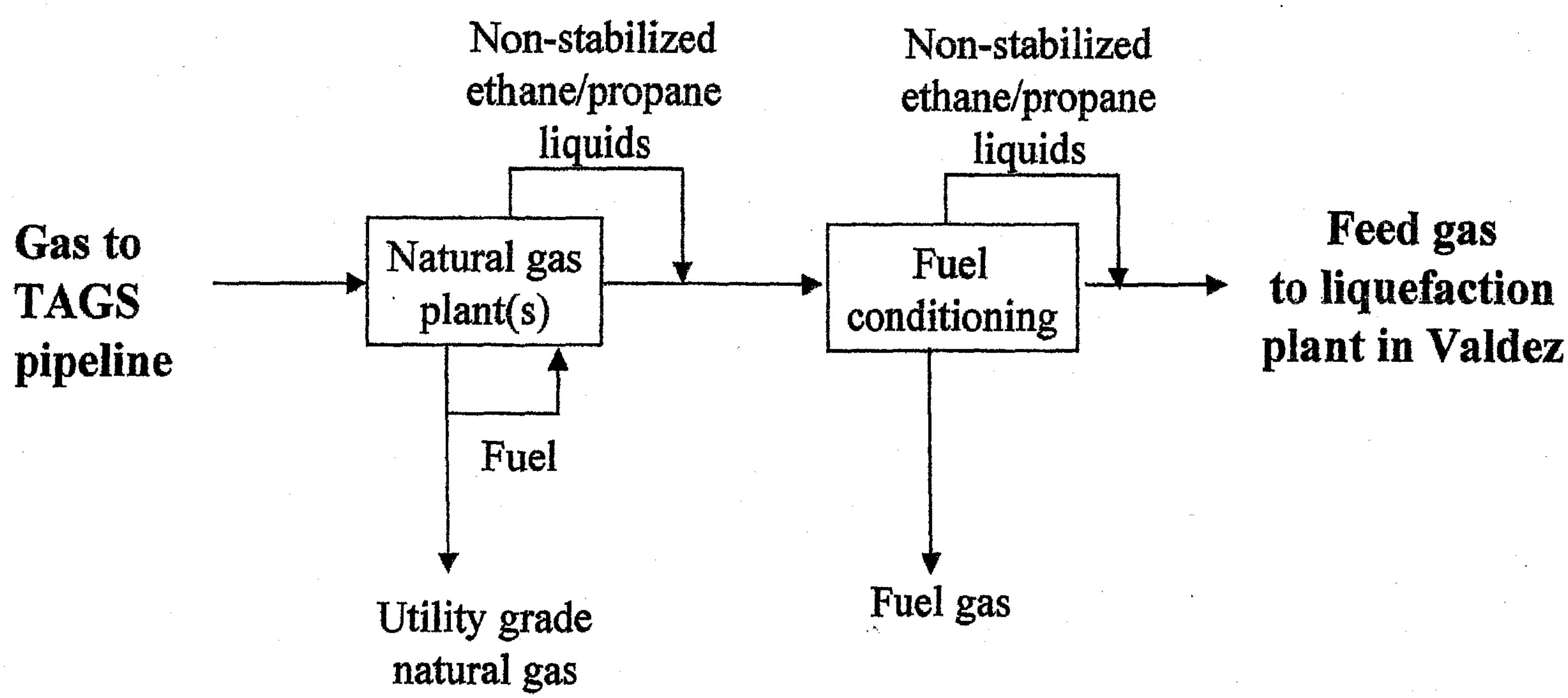
Impacts On Oil Production From TAGS Small Project

- Miscible injectant / EOR: minimal impact expected during remaining life of EOR project.

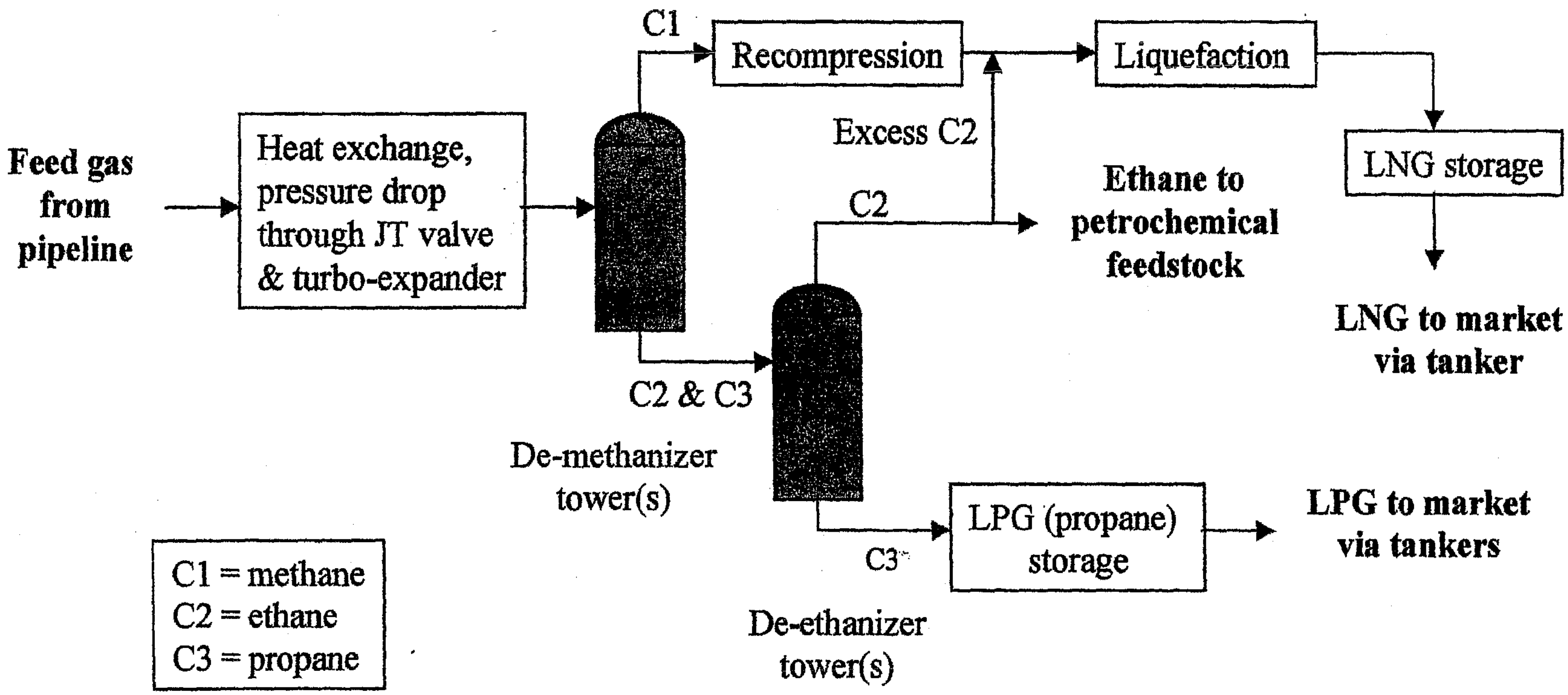
- Impacts due to drop in reservoir pressure: less drop with smaller project.

- Increasing gas off-take should increase near term oil production (crude oil and NGL).

TAGS – Pipeline, Stations, In-state Gas



TAGS – LPG/LNG/Terminal Facility in Valdez



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Market Quantities and Product Prices Used for Economics

	mmscfd	1000 Bbl/day	Million tons/yr	2002 $/mmbtu
In-state gas	50		0.36	2.50
LNG to N. America	280		2	2.75
LNG to Asia	710		5	3.50
Propane as LPG (*)		75 / 50	2.21	4.38
Ethane feedstock		60	1.25	2.00
Total			10.8	

* LPG rate assumed to decline from 75,000 to 50,000 Bbl/day

Capital Costs Estimates

Gas Conditioning Plant	ANS LNG + $500 million for compression and NGL extraction
Pipeline & Stations	Willbros/M.Baker for 36-inch adjusted to 30-inch
LNG/MT	Kellogg Brown & Root + $500 million for C2 & C3 extraction
Tankers	
- 7 LNG (135,000 cu.m.)	$175 million each
- 3 LPG (85,000 cu.m.)	$125 million each

Comparison with Prior Costs Estimate

	ANS LNG group (*)	TAGS Small Case
Bscfd conditioned gas	1.1	1.4
Capital costs ($billion)		
GCP	0.9	1.5 (1.0 + 0.5)
30-inch pipe & stations	2.4	3.3
LNG - Valdez	1.8	3.0 (2.5 + 0.5)
Tankers (7 ANS, 10 TAGS)	1.6	1.6
Misc. & rounding		0.1
Total	6.7	9.5

* Alaska North Slope LNG Project (recently disbanded)

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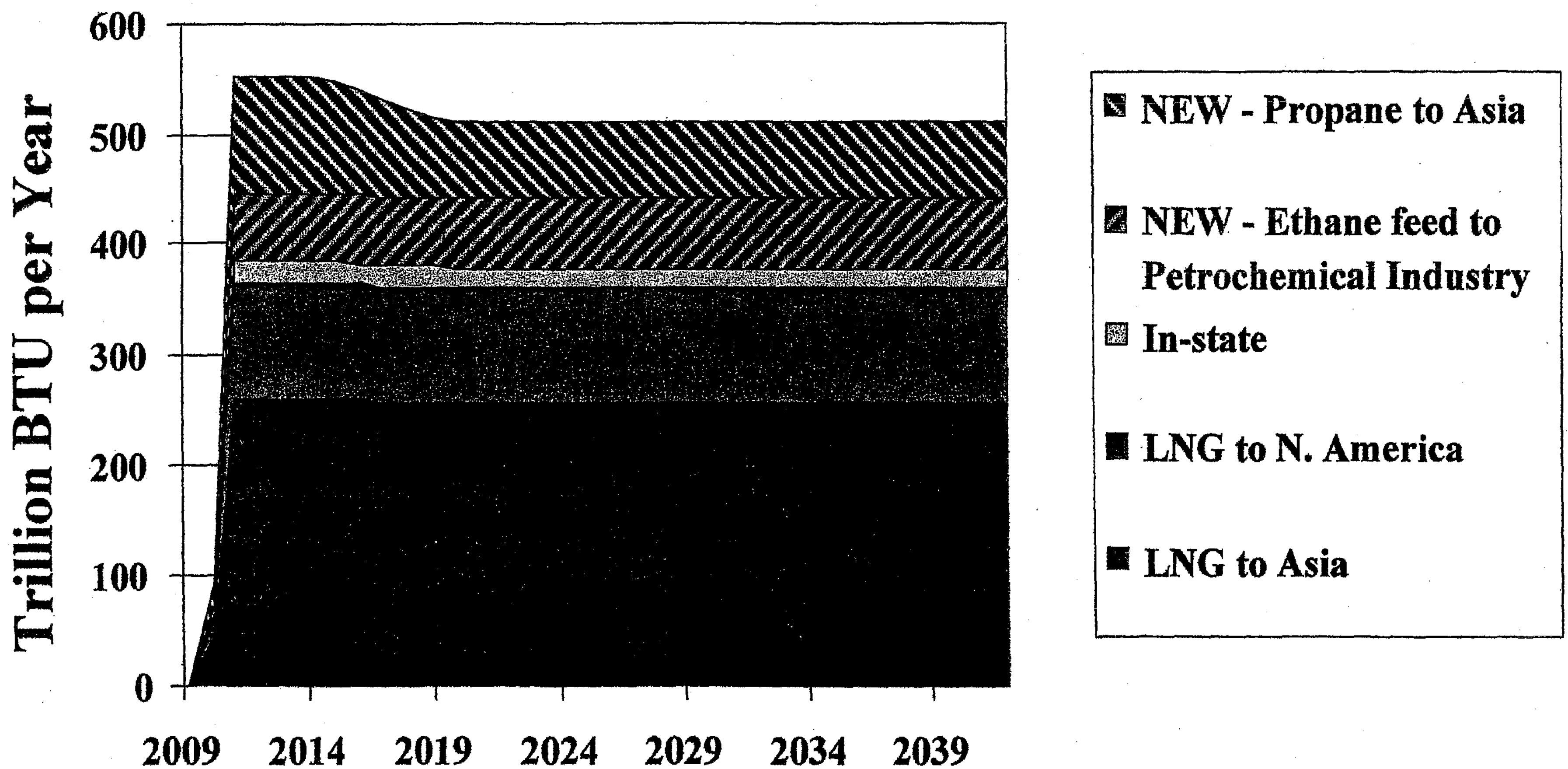
TAGS Small Project

7 MTA of LNG + New Products



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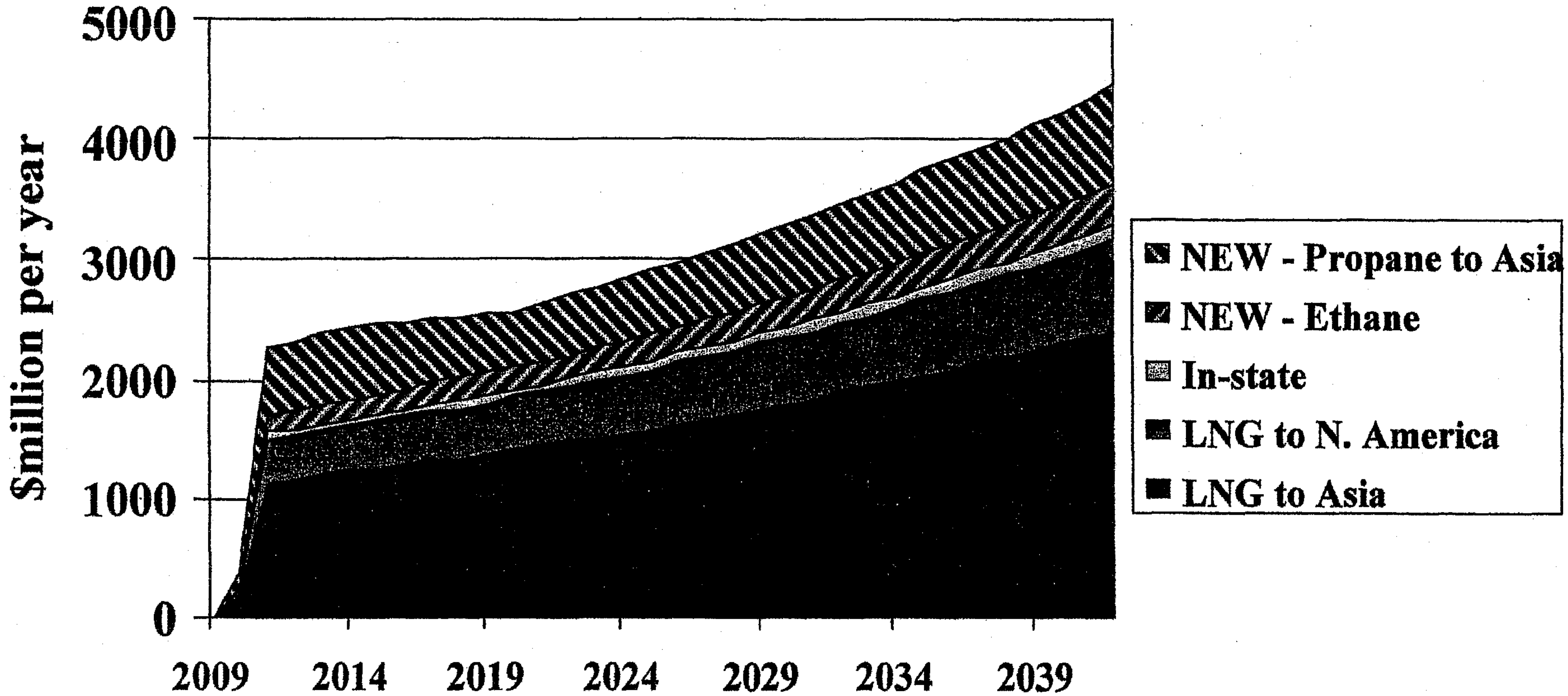
TAGS Small Case - Gross Revenues

7 MTA + New Markets



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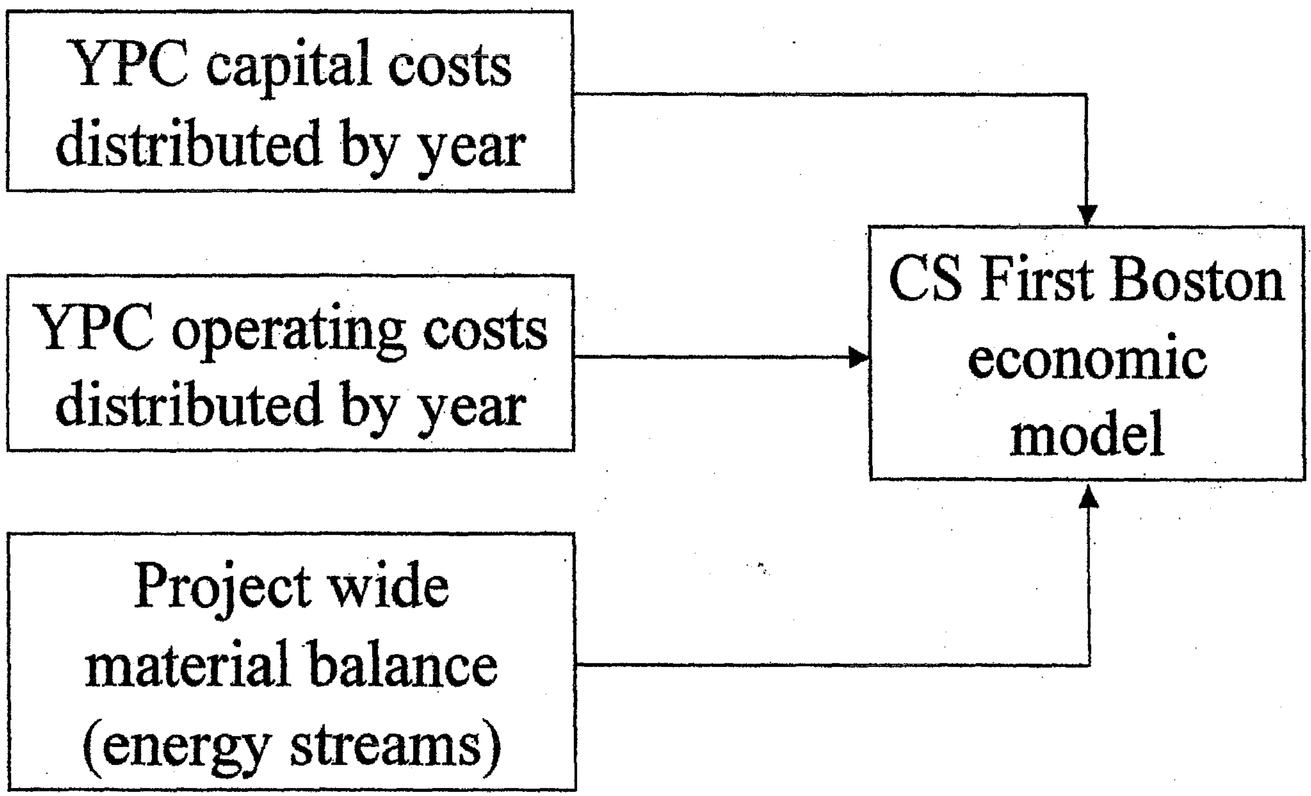
YPC Economic Model



Economic Premises

- Debt to equity ratio – 75/25
- Interest rate for construction and debt service – 8%
- Inflation – 2.5%
- Gas purchase price - $0.50/mmbtu at inlet to gas conditioning plant (Reference: CERA December, 2001)

TAGS Small Project Economics
Internal Rate of Return (%IRR)

	Infrastructure Only	Including Net Gas Purchase Revenue (*)
15% LPG decline	11.8%	14.8%
No LPG decline	12.7%	15.6%

* Includes gas purchase revenue net after royalty, severance and taxes.

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Next Steps

- Determine economics/viability of petrochemical plant.
- Verify LPG market in Asia.
- Obtain data from Prudhoe Bay Unit
  - Forecast of compositions and rates of stabilizer overhead and raw field gas
  - Potential interface with existing equipment
  - Potential increase in near term oil production

Small Project Now DOES NOT Preclude Other Projects Later!

- The YPC small project requires relatively little of the North Slope methane resource.

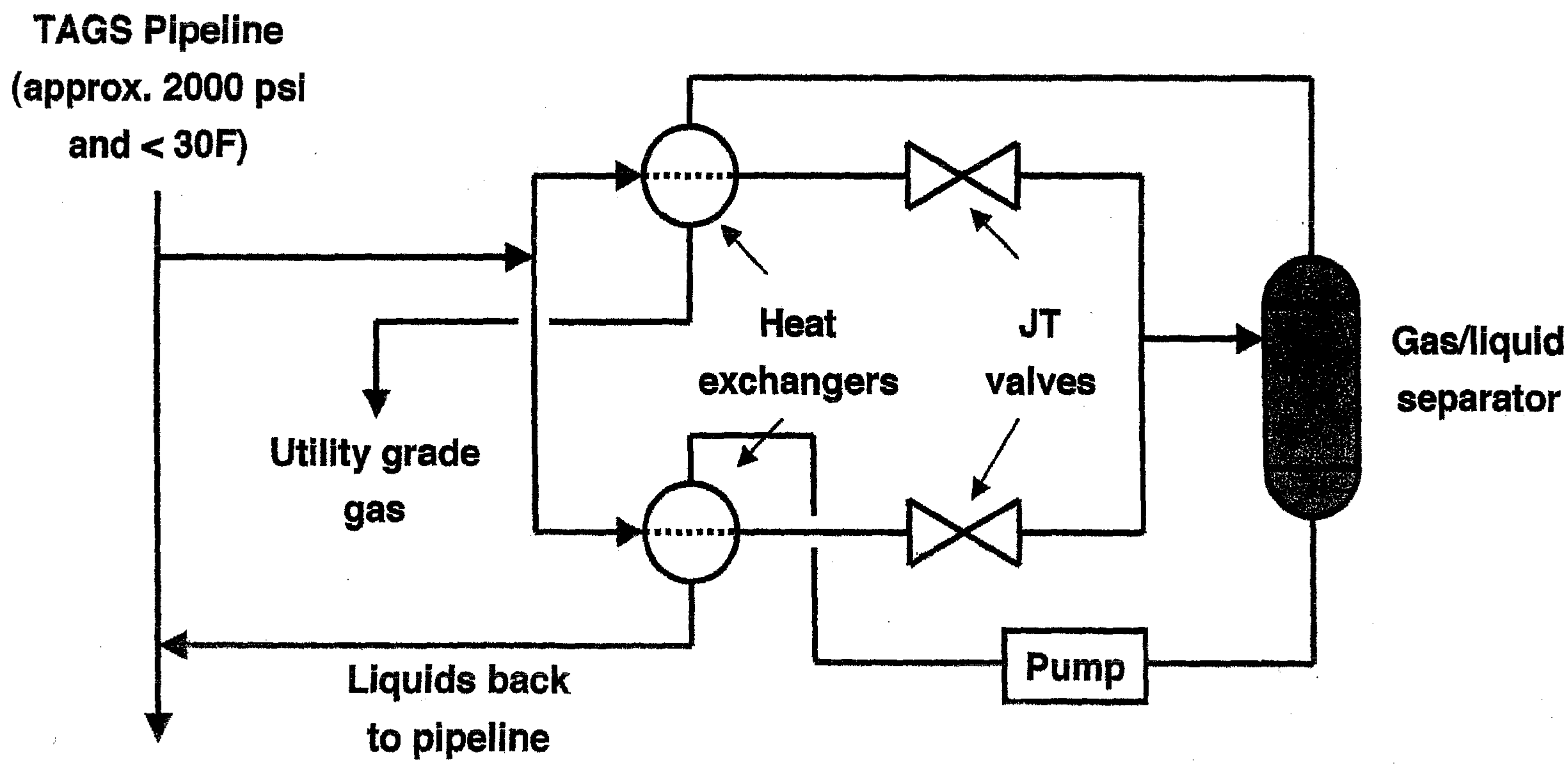
- There will be plenty of methane left to supply pipeline projects through Canada to Lower 48.

- There should be no impact on a gas-to-liquids project.

Gas Accessible for In-State use with Minimal Capital Cost

- Conditioned gas will be free of CO_2 and dry.
- No further gas pre-treatment required.
- Gas facilities along the pipeline will be simple and inexpensive.

Simplified Schematic of In-State Gas Facility



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Why Is YPC Looking at a Smaller Project?

- Lowers capital costs
- Enhances market entry
- Provides means to market most valuable gas components remaining on the North Slope
- Uses enhanced project revenues to establish gas infrastructure/industry within Alaska

Conclusion: Alaska Should Keep Its Options Open

State and/or Federal assistance MUST apply to all projects.

YPC is ready to work with all parties interested in developing Alaska's North Slope gas.

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Director of Project Development

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