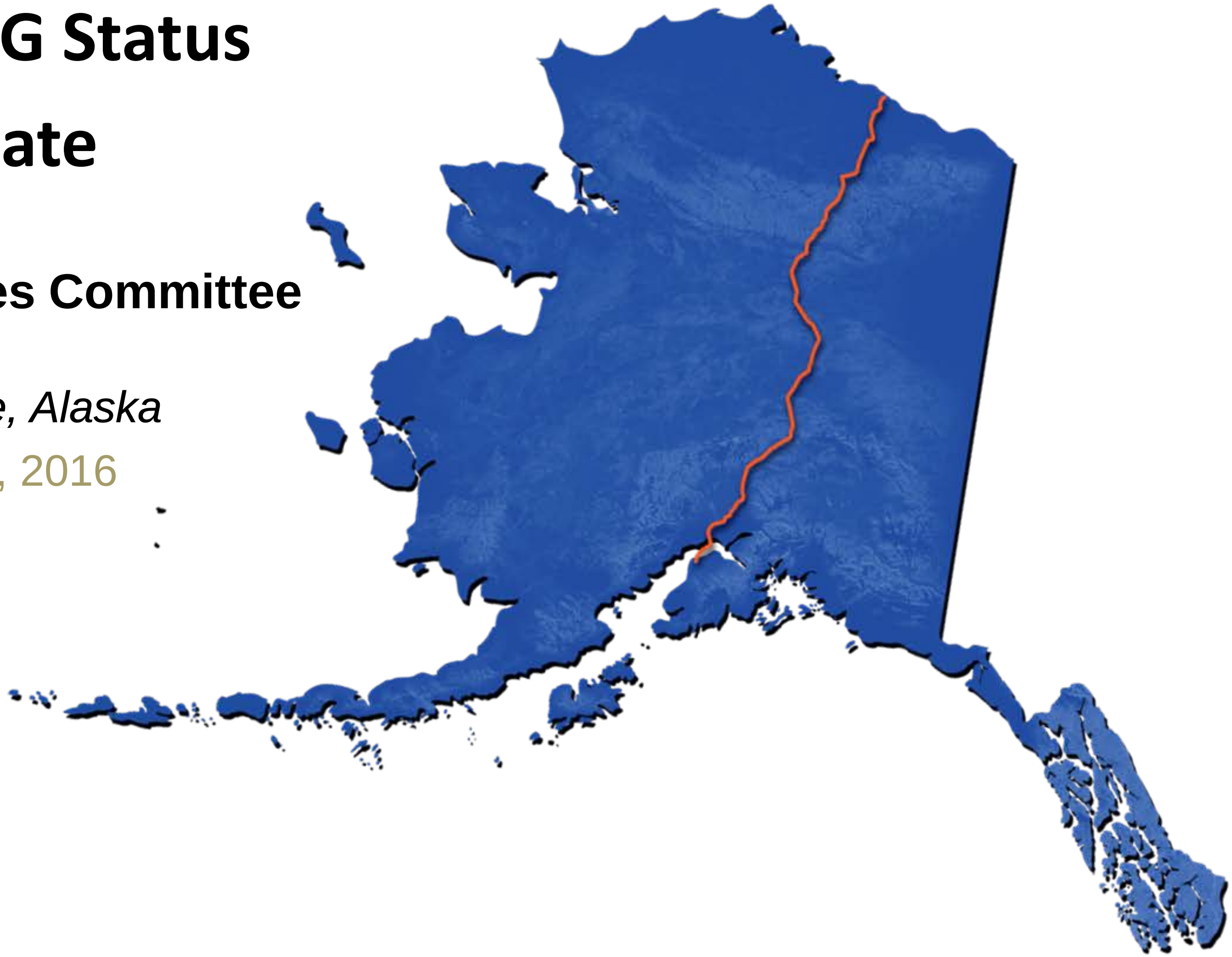
ALASKA GASLINE DEVELOPMENT CORP.
GAS FOR ALASKANS

Alaska LNG Status Update

Joint Resources Committee

Anchorage, Alaska

June 29, 2016



Topics

- AGDC Overview
- Alaska’s LNG Project
- LNG Market Assessment
- Alaska’s Advantages
- Keeping the project on pace
- State Team Roles
- Schedule & Budget Implications
- Summary/Conclusion

AGDC President Meyer

Keith Meyer receiving the industry's first "LNG Company of the Year Award" in Rome, Italy 2007.

- Keith Meyer – President AGDC
  - Appointed June 9; started June 15, 2016
- 35 years experience in international energy development, including gas pipelines, gas storage, power generation, LNG, petrochemicals, biofuels; international LNG and gas sales.
- Former President Cheniere LNG, developer of North America's largest LNG receiving terminal.
- Originator and co-patent holder of electronic LNG cargo slot bidding system (lnggateway.com).
- CMS Energy - VP Panhandle Pipeline, Trunkline LNG, became largest importer of US spot cargos.
- ANR Pipeline/Coastal Corp – Strategic Planning; VP Marketing Empire State Pipeline
- Advisory Board Member - Houston Technology Center
- Program Instructor – Rice University, Houston TX

Objectives at AGDC

- **Operate as a corporation.**
- Every decision to be based on **sound business principles**.
  - ✓ Defensible,
  - ✓ Stand up to challenge.
- **More transparency** with public, legislature, market.
- **Cooperative relationship with producers.**
- Structure for **third-party finance**.
- Secure **long-term customer commitments**.
- Maintain **2023-2025 project in-service window**.
- Expand **in-state gas availability**.
- **Reestablish Alaska as an LNG leader.**

- **AGDC will <u>not</u>** be responsible for RIK/RIV election, state funding or credit support, or other-agency statutory responsibilities.

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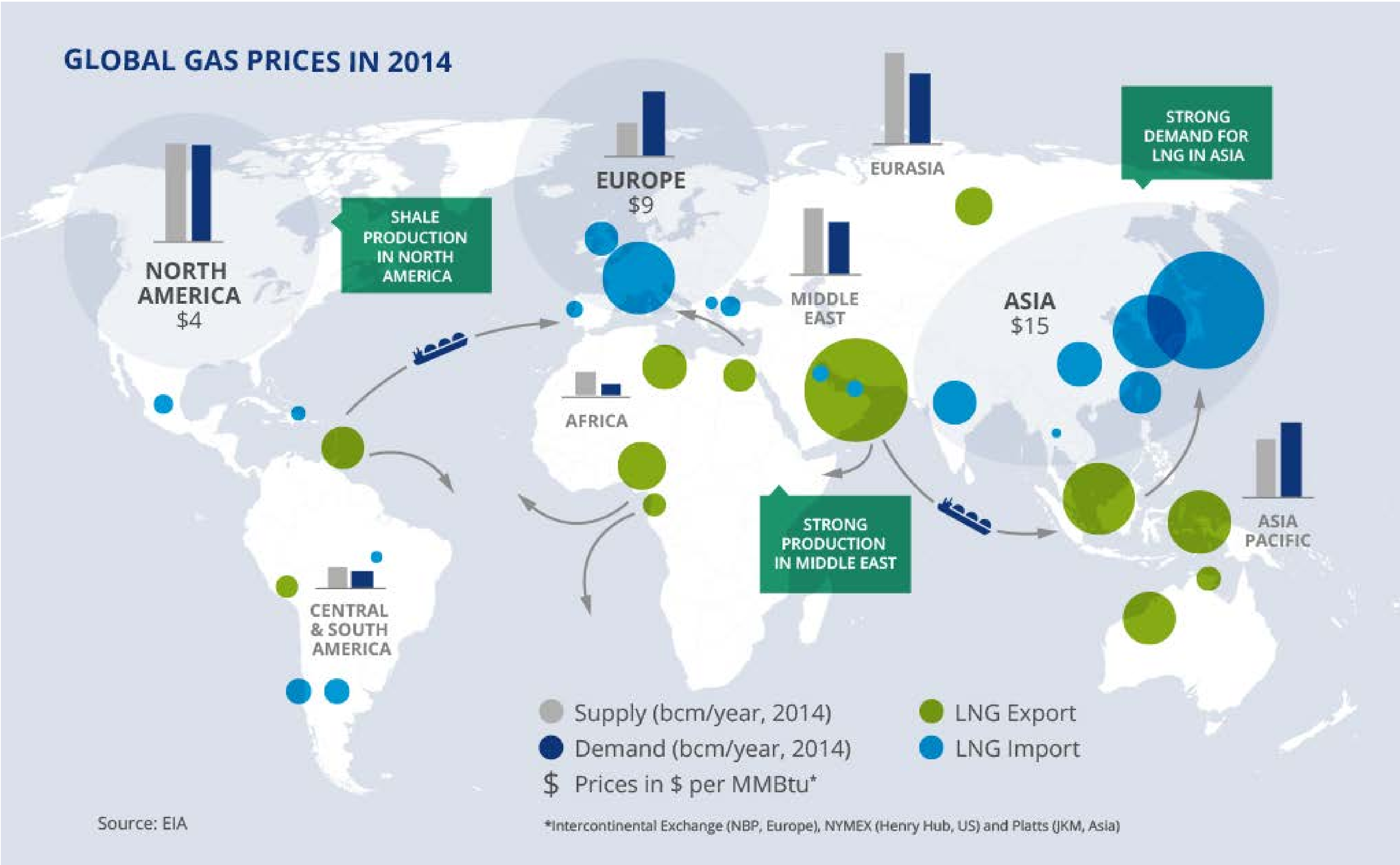
Global LNG Trade - 2014



Alaska’s LNG Project

- Largest integrated energy infrastructure project.
  - ✓ Gas treatment plant,
  - ✓ Pipeline,
  - ✓ LNG production.
- Thousands of workers and skilled trades.
- Reliable gas supply for new and existing industries.
- Lowers the barrier to open up the north for new exploration and production.

A Long History

- Alaskan LNG has a **long history with a typical paradigm**:
  - ✓ Demand heats up,
  - ✓ Project ramps up,
  - ✓ Demand captured by others,
  - ✓ Project ramps down.
- **Need to change the paradigm.**
- Cyclical industry.
- Prepare in the downturn, to capture the upturn.

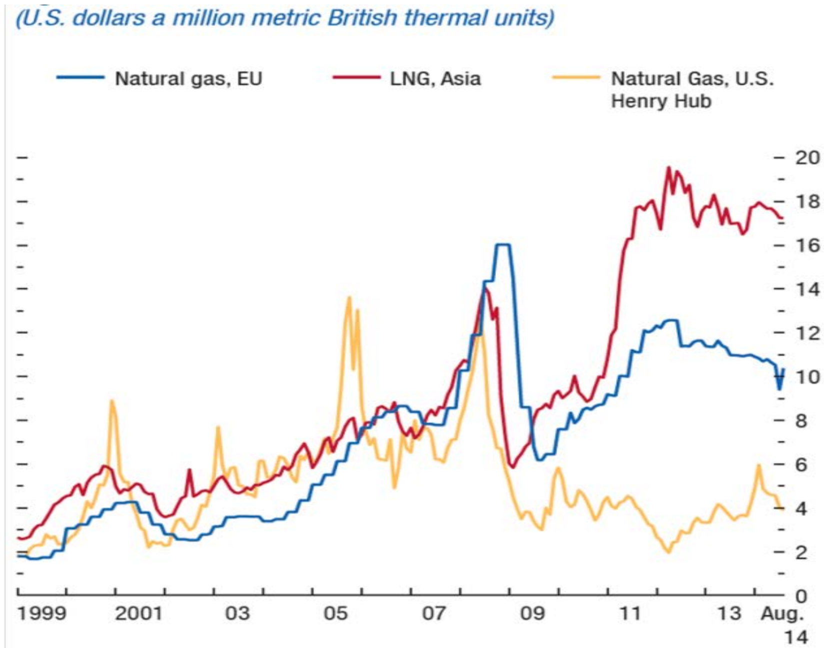
Prepare for the inevitable.


The Daily Record, Ellensburg, Wash., Fri., Jan. 13, 1984 Page 7

Multibillion dollar project

Hickel pushing plan to tap Prudhoe Bay gas

Gas to Asia



Confidence in Mission

- **Prepare in the downturn, to capture the upturn.**
- No need to build in the absence of market, but **need to reduce execution risk to convince the market you can build in a reasonable timeframe when they are ready to buy**.

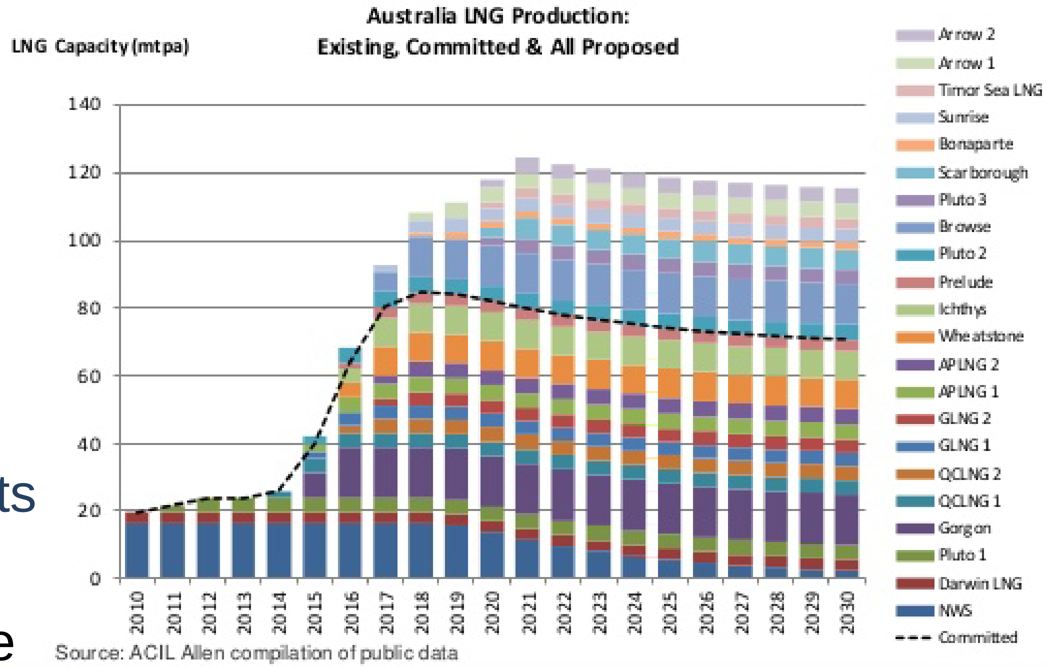
CMS prepares for imports.

Cheniere prepares for imports.

Cheniere and early movers prepare for exports.

Australia as Case Study

- Australia as case study:
  - ✓ Stable sovereign,
  - ✓ History of resource exports,
  - ✓ Long history in LNG exports with one export project,
  - ✓ Small domestic demand.
- During the 2009 downturn, Australia was positioning its LNG and gas resource projects for global competition.
- When the demand cycle came back, Australia was ready to move.
- **Australia will be the world's largest LNG supplier by next year.**



Source: ACIL Allen compilation of public data

Position in the downturn, capture the upturn.

Mtpa = Million tons per annum = about 50 Bcf/yr.

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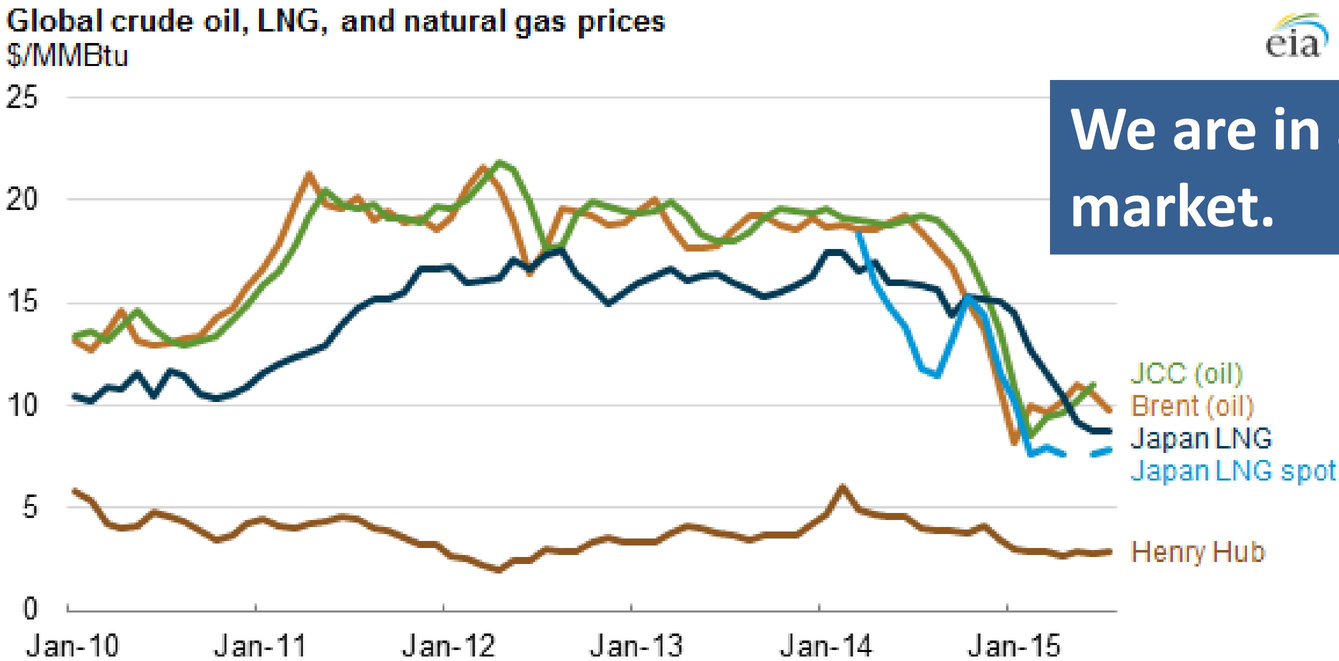
LNG Market Changes

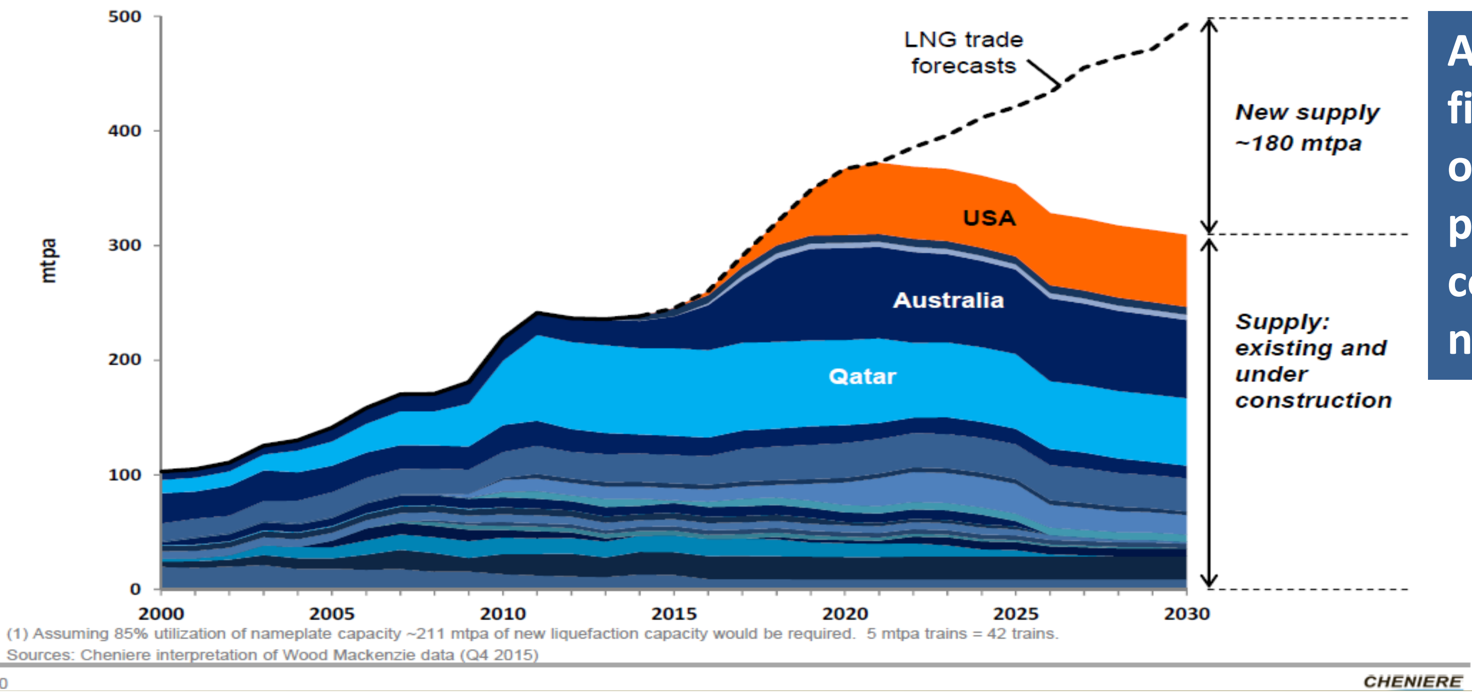
- Excess supply in response to huge demand pull;
  - World liquefaction capacity doubled in last 10 years (to 300 Mtpa).
  - Another 140 Mtpa under construction.
  - Created soft, oversupplied market.
- High-teen LNG pricing has dropped to single digits.



We are in a bear market.

LNG Market Changes

- **Equilibrium expected by early 2020's** - supply needed by 2022;
  - 40-100 Mtpa needed by 2025.
  - Over 800 Mtpa of projects wanting to reach fruition to meet the demand.
- **Sophisticated and demanding buyers** with abundant supply choices.
- **Evolving contract terms**: destination flexibility, reopeners, non-oil linked pricing.
- Multiple projects competing for scarce internal capital.

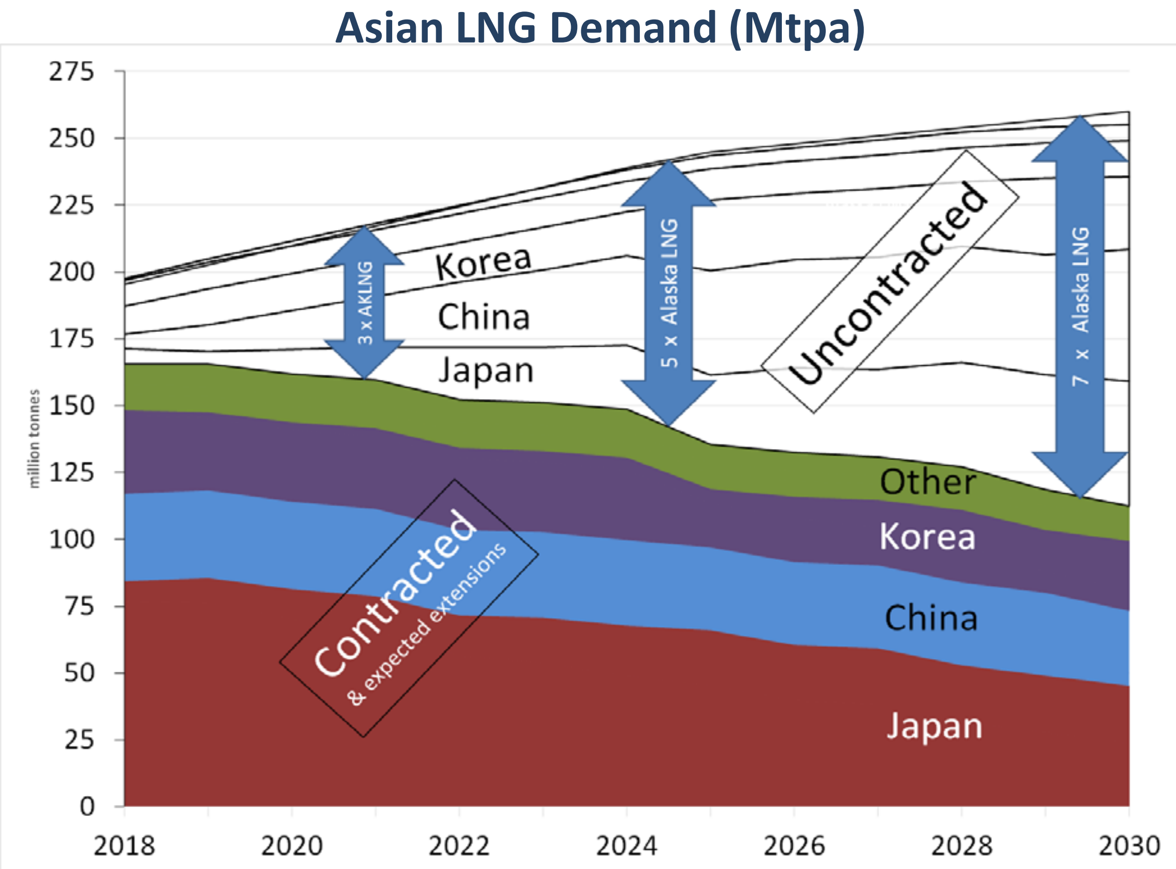


Alaska needs to fight to be one of the many projects competing for new market.

Mtpa = Million tons per annum = about 50 Bcf/yr.

Asia-Pacific LNG Demand

- Asian demand is the major growth driver.
- Opportunity is to serve demand growth as well as replace expiring contracts.
- **Alaska has advantage with proximity and direct route.**



Sources: Wood Mackenzie, OECD/EIA 2014

Mtpa = Million tons per annum = about 50 Bcf/yr.

Alaska Very Well Positioned

Alaska's strengths can help overcome project challenges:

- Massive proven gas resources
- Enormous undeveloped resource potential
- Stable sovereign government
- Installed oil & gas production infrastructure

- Four decades of safe, dependable LNG exports
- Broad local support
- Market proximity
- No technical barriers and low technology risks
- Relatively low domestic demand

Alaska LNG Status

- **Excellent technical progress:**
  - $500 million Pre-FEED reaching conclusion.
  - All deliverables expected in September.
  - Resource Reports being prepared for Draft 2 filing.
  - **FERC application by end of 2016 is a critical path item.**
- **Slow commercial progress:**
  - Low oil prices and soft LNG market create challenges.
  - Seeking alternative means to reduce cost of supply and to conduct FEED activities.
  - **No consensus around starting FEED mid-2017.**

AGDC sees two options:

1. **Take the lead and find ways to reduce cost of delivered supply.**
   - Potential increased state ownership to enable lower tax cost structure.
   - Open up project participation to broader market.
   - Create project momentum in the market to facilitate offtake contracts.
2. **Delay FEED, potentially delay the project.**

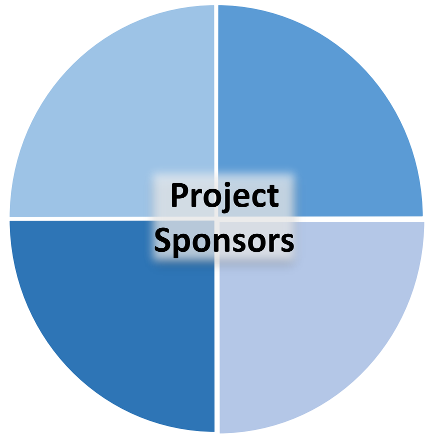
AGDC's Alaska LNG Action Plan

- Project sponsors intend to look at all aspects, with **emphasis on reducing total cost of delivered supply**.
- It is important to the State to **maintain pace in order to have an opportunity to contract for next demand pull**.
- LNG market is global – multiple projects chasing the same buyers.
- All participants want to monetize the resources.
- **Action Plan: Work in a collaborative manner** to explore alternative concepts **intended to enhance the project's global competitiveness**. These concepts include **various ownership and financing structures** and **could include increased ownership of the project by the State - and with third-party financing.**

Equity vs. Project Finance

Equity Structure

- In an equity structure, each party contributes its share of capital requirements.



Project Finance Structure

- The project sponsors put up some capital, especially in early development.
- Majority of funding comes from third-party sources.

Project Finance

Akash Deep
Senior Lecturer in Public Policy; Expertise in infrastructure finance and valuation
Harvard Kennedy School
December 1, 2005

HARVARD Kennedy School
JOHN F. KENNEDY SCHOOL OF GOVERNMENT

- **Project Finance** involves creating a separate legal and economic entity with the primary role of setting up an organizational structure and obtaining the necessary financial resources to develop and manage a project.
- The main, and crucial, distinction from conventional corporate or public financial structures is that repayment to debt and equity providers depends solely on the capacity of the project to generate cash flows, with typically **no recourse to the balance sheets of the sponsors or the resources of the government**.

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Project Structure Diagram

Under a Project Finance structure, the Project Company is a special purpose vehicle set up to hold all agreements necessary to build, own, and operate the project.

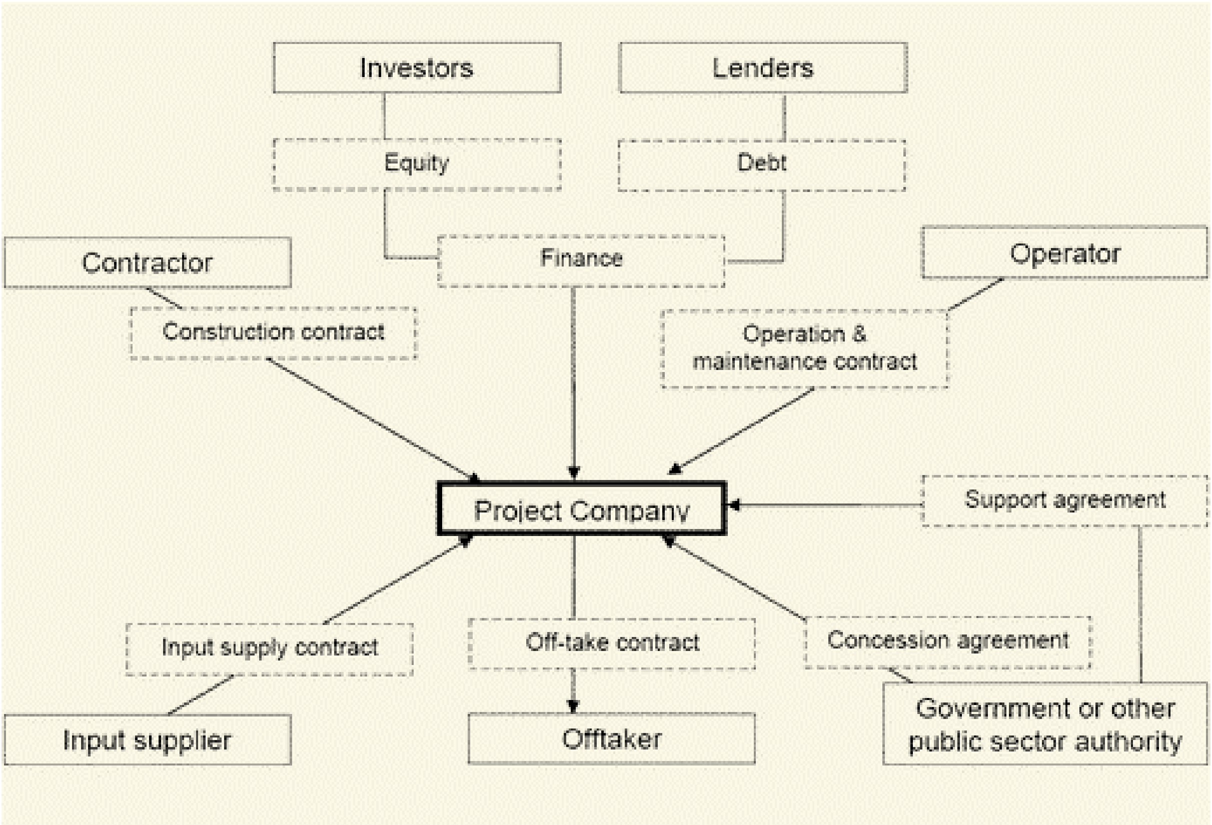

Diagram courtesy of Akash Deep, Harvard Kennedy School of Government

Trends in Infrastructure Finance

- **OECD Survey (2012) – Survey of 28 institutional investors representing $US1.5 Trillion of assets under management.**
  - Infrastructure investment now recognized as a distinct asset class.
  - Infrastructure projects are long-term investments that match the long duration of pension liabilities.
  - Infrastructure assets linked to inflation could hedge pension funds liability sensibility to increasing inflation.
  - Governments have started to recognize that they need to reconsider their approach to financing to secure new sources of capital to invest in infrastructure.
  - Developed and developing countries are in effect competing to attract institutional investors to infrastructure.

OECD = Organization for Economic Cooperation and Development; 34 nations.

Della Croce, R. (2012), "Trends in Large Pension Fund Investment in Infrastructure", *OECD Working Papers on Finance, Insurance and Private Pensions*, No.29, OECD Publishing.

Required State Response

- Alaska is singularly focused on moving the project forward in order to not miss the next demand cycle.
- To help ensure momentum, AGDC will take the lead on project development and project marketing in compliance with SB 138 and in consultation with DNR.
- Alaska LNG must have a higher profile to compete in the global arena:
  - Actively engage buyers.
  - Solicit investors.
  - Outmaneuver the competition.
- New structures are being considered and discussed.

Commercial Framework Concept

- AGDC will form the special purpose entity that will be the Project Company.
- Project Company will have a set of overarching principles designed to keep the project on track with competitive rates.
- Project Company will engage competent technical and commercial advisors.
- Producer parties' roles may change:
  - AGDC aims to keep project participants together, although some may choose not to invest in the next stage.
  - Ability for parties to participate and exit with minimal impact on project pace.
- Project ownership may not equate to gas ownership.

Commercial Framework Concept (Cont.)

- Alaska LNG (Project Company) will be a midstream business:
  - Not an extension of Prudhoe Bay or Point Thomson.
  - Provides unbundled services to producers, AGDC, third parties: GTP, Pipeline, LNG.
  - Levies transparent tolls in line with midstream businesses to clear market and maximize upstream revenues.
- Potential for alternative financing.
  - Federal tax reduction options.
  - Lower-cost third-party equity investors.
  - Non-recourse debt to minimize financial exposure.

Interface with State Agencies and Funding

- AGDC as single point of accountability for the midstream portion.
- AGDC could become a shipper.
  - If DNR elects to take royalty in kind and agrees to sell to AGDC.
  - If other customers desire a bundled service.
- AGDC and others will market the project as a service provider.

Roles of AGDC and Key State Agencies

Roles of AGDC Relative to Midstream Infrastructure				
Critical Activity	**State Roles**			
	AGDC	DNR	DOL	DOR
Technical	A R	C	I	I
Structure	A	C	R C	C
Midstream Agreements	A R	C	R	C
Regulatory	A R	C I	C	I
Project Marketing	A R	C	C I	C I
Financing				
State Participation	R	I	C I	A
Third-Party Finance	A R	I	C I	C
Construction	A R	I	C	C
Operations	A R	C	I	C
Royalty Gas Sales if Contracted	R	A	C	C
Global Presence	A R	C	C	C

R Responsible

A Accountable

C Consulted

I Informed

AGDC's Alaska LNG Completion Timeline

- Complete pre-FEED and file FERC Application 2016
- Final Investment Decision target 2018
- Target in-service 2023-2025

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Budget Implications

ISNGP Fund	AKLNGP Fund		Total
$42,900	**$64,200**	**FY16 Projected Ending Balance** *(Prior to Legislative Adjustments)*	**$107,100**
	$4,100	Reduce LAW's $10.0 FY16 SpecSess SB3001 approp and approp to AKLNG Fund	
$9,000		Change Fund Source on DNR FY16 NS Gas Commercialization Approp	
($26,000)	$26,000	Transfer from In-State Fund to AKLNG Fund	
$25,900	**$94,300**	**FY16 Projected Ending Balance** *(After Legislative Budget Adjustments SB138)*	**$ 120,200**
		FY17 AGDC Projected Expenditures	
($6,200)	($4,200)	FY17 AGDC Corporate Operating Costs	($10,400)
($3,500)	($2,300)	FY17 AGDC Technical & Engineering Contract Labor	($5,800)
	($36,000)	CY16 JVA AKLNG Cash Calls - Meet SoA share of $239mm 2016 WP&B	
	($6,500)	CY17 JVA AKLNG Estimated Cash Calls	
($6,500)		FY17 ASAP SEIS Completion	
($4,900)		FY17 In-State Gas Delivery Work	
	($2,000)	FY17 Initial RSAs for DNR, DOR and LAW for project services provided AGDC	
($21,100)	($51,000)	**FY17 AGDC Total Projected Spending**	
$4,800	**$43,300**	**Projected Balance June 30, 2017**	**$48,100**

Summary/Conclusions

- Market conditions and lack of consensus among participants is leading to a project slow down.
- AGDC can step into the lead in the project to maintain momentum and focus on cost reductions through structure and financing changes.
- Alternative venture structures could keep all participants engaged and create flexibility to allow Alaska LNG to compete in the mid 2020's market window.
- AGDC will ensure Legislature is kept well informed throughout the process.

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Questions

Keith Meyer

President

Alaska Gasline Development Corporation (AGDC)

3201 C Street, Suite 200

Anchorage, Alaska 99503

(907) 330-6300

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