

# **Gas pipeline efforts work on permits while waiting on the markets**

# Pipeline projects in parallel

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- State working on two interconnected tracks
  - ✓ A large-volume, expensive LNG export project
  - ✓ A smaller but still expensive in-state pipeline
- Smaller is backup to bigger, but both need:
  - ✓ Federal environmental impact statement
  - ✓ Customers, gas supply, investors and state cash
- Getting closer on permitting, less so on financing

# Backup line at the Army Corps

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- Alaska Stand Alone Pipeline (aka ASAP, Bullet Line)
- Comments closed Aug. 29 on draft supplemental EIS
- Final EIS due from U.S. Army Corps in December
- State expects Record of Decision by March 2018
- First EIS was final in 2012, but significant changes in the project and route required supplemental EIS
- State submitted application 2014; revisions 2016

# Big project at FERC

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- FERC will prepare federal EIS for LNG project
- State filed in April; FERC last week sent third batch of its data requests to AGDC (250+ pages in total)
- FERC will not issue EIS schedule until it is confident it has enough information to set a realistic timetable
- State asked FERC for very ambitious EIS schedule
- Draft summer 2018 and final by December 2018
- Construction start 2019 and first LNG cargo 2023

# FERC cautious with schedule

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- AGDC expects FERC to issue EIS schedule this fall
- FERC will not set a schedule until it is ready
- New federal permit tracking office, executive order to move along reviews cannot dictate FERC schedule
- Commission does not want to set a schedule that it and other federal regulatory agencies cannot meet
- Besides, a rushed EIS is a litigated EIS
- Expect challenges by pipeline, fossil fuel opponents

# Spending continues

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- Going back to 2000, the state and producers have spent about **\$1.7 billion** on gas line efforts
- Lack of a project is not for lack of trying
- AGDC will have spent about \$150 million by the time it gets its Record of Decision on backup line
- State will have spent more than \$200 million on LNG project as of the end of fiscal year June 2018
- AGDC likely will need more money from legislature if it continues EIS work with FERC through 2018-19

# What comes after permits?

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- Army Corps authorization for the backup line has value and can be used to help the bigger pipeline
- Spending on backup line will stop after final EIS
- State could need to make next spending decision on the LNG project before FERC reaches final EIS
- Governor and AGDC have consistently said they would not proceed unless there is market interest
- Not just interest, but real dollars and real contracts

# Big or small, need a market

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- The backup line and LNG project have much more in common than steel pipe, natural gas and permits
- Each needs customers to pay the mortgage
- Alaska market too small to support line on its own
- Investors and lenders will not loan on local needs; they need to see contracts sufficient to make money
- No one finances gas pipelines on speculation; and Alaska is in no position to pay cash for its share

# Traditional LNG market changed

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"If the market's liquidity has improved to the point where it's possible to buy or sell LNG any time, it would become less necessary to rely on long-term [deals]."

— *Sunao Okamoto, LNG Trading General Manager, Osaka Gas*

"It's a buyer's market at the moment and there's no doubt about that." — *Woodside CEO Peter Coleman*

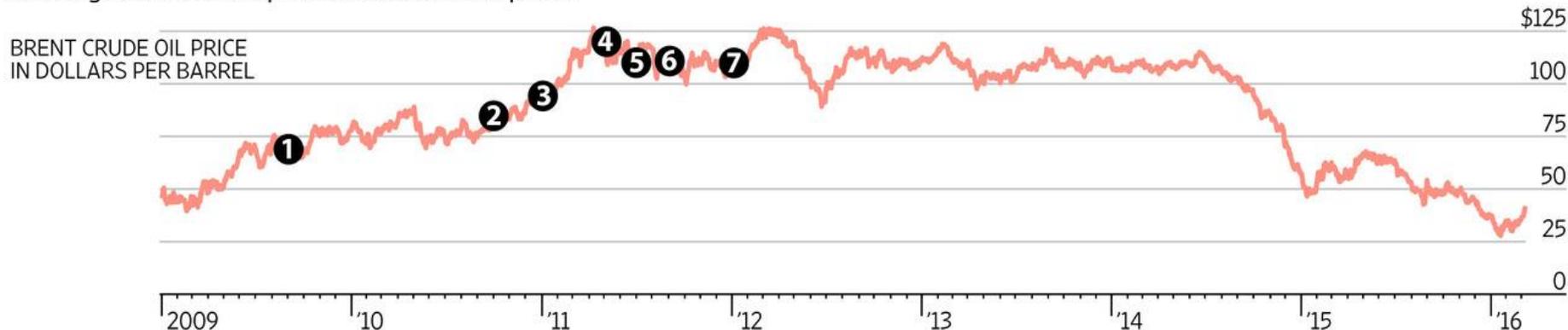
"Actions based on predictions rarely work out. That is how it works in the world."

— *JERA Co. Chief Fuel Transactions Officer Hiroki Sato*

# Predictions that did not work out

## Tough Timing

Massive liquefied natural gas projects in Australia were approved when oil prices were on the rise. They have begun shipping the chilled natural gas amid a slump in benchmark crude prices.



Project and budget estimate	1 Gorgon	2 Queensland Curtis LNG	3 Gladstone LNG	4 Prelude*	5 Australia Pacific	6 Wheatstone	7 Ichthys
	\$54 Billion	\$20.4B	\$18.5B		\$18.4B <sup>†</sup>	\$29B	\$37.4B
Investment decision	Sept. 1, 2009	Oct. 1, 2010	Jan. 3, 2011	May 2, 2011	July 1, 2011	Sept. 1, 2011	Jan. 3, 2012
LNG Capacity (metric tons a year)	15.6 Million	8.5M	7.8M	3.6M	9.0M	8.9M	8.9M
Project operator	Chevron	BG Group	Santos**	Royal Dutch Shell	Origin Energy	Chevron	Inpex
Production start date	March 2016	December 2014	September 2015		December 2015	2017 <sup>††</sup>	2017 <sup>††</sup>

\*Budget estimate and production start not disclosed, Bernstein estimates the cost at US\$16 billion, with a 2017 start-up hubs while the JV operate the LNG plant <sup>†</sup>Converted from Australian dollars at current rate <sup>††</sup>Scheduled

\*\*Santos operates the upstream activities, wells and compression

Sources: Thomson Reuters (oil prices); the companies

THE WALL STREET JOURNAL.

# A competitive world

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- Australia will have more than tripled its LNG production capacity between 2012 and 2018
- More supply under construction at Russia's Yamal, and 6 sites in Texas, Louisiana, Georgia, Maryland
- Potential for even more Gulf Coast export capacity
- Mozambique is getting one, maybe two LNG plants
- Expansion possible for existing export projects in Papua New Guinea, Russia's Far East Sakhalin plant

# A buyer's market this decade

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- India has renegotiated long-term deal with Qatar
- Indian gas distributor wants to renegotiate lower price on 20-year contract with Louisiana LNG plant
- More buyers are expected to push for better terms
- Toshiba signed 20-year commitment to take gas from Texas LNG project, but still looking for buyers
- Spot-market LNG below long-term contract prices, putting strain on sellers — but it will not last forever

# Long-term deals losing ground

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- Jera Co., a joint-venture of Tokyo Electric and Chubu Electric, is planning to cut the amount of LNG it purchases under long-term contracts by almost half from current volume by 2030
- LNG buyers are playing sellers against each other
- About 28% of LNG in 2015 was sold on a spot or short-term basis, up from single digits pre-2006
- Projections of 40% spot/short-term deals by 2020

# Thankfully, market is growing

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- As LNG prices have fallen, more growing economies are burning more gas for cleaner power generation
- India, Pakistan, Thailand, Vietnam, South America, Jordan, Kuwait, Turkey, Bangladesh turning to gas
- Floating LNG import, storage and regasification vessels have lowered the entry cost for new buyers
- Low prices are creating new demand worldwide
- But that demand could stall if prices rise too much

# Property taxes unresolved

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- Impact aid fund would be used during construction
- Negotiated payment in lieu of tax during operation
- Certainty of expense and certainty of revenue
- No lengthy litigation over assessed value
- Draft negotiated with producer-led team 2015:
  - Construction PILT fund: \$800 million over 5 years
  - Operations PILT: \$14 billion 25 yrs. (volume-based)

# Impact aid during construction

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- Intended to cover direct cost of services, repairs, municipal expenses related to construction impacts
- Not a profit center for municipalities
- Project would write one check to the state
- Probably administered as a state grant program
- Municipal advisory group, AGDC and legislature need to figure out how grant program would work

# PILT during operations

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- Payment in lieu of property taxes based on formula
- More gas, more money; less flow, less money
- State and municipalities need to decide allocation
- Producers want no part of that political battle
- Portion of it could (should) be shared statewide
- Population, direct and indirect impacts, statewide, project mileage? The legislature will have to decide
- AGDC says there will be a PILT, but no details yet

# State fiscal plan must come first

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- Hard to imagine anyone loaning the state billions of dollars when we don't know how we will pay for schools in a couple of years
- Alaska covering two-thirds of budget from savings
- LNG alone cannot solve state's fiscal problem; not that much profit in gas, and it's years away
- Think of the project as a needed booster shot in the years ahead; it will not cure today's illness

# For more information

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Larry Persily

Chief of Staff, Kenai Peninsula Borough, Alaska

907-351-8276

[lpersily@kpb.us](mailto:lpersily@kpb.us)

Alaska LNG project reports

<http://www.kpb.us/mayor/lng-project/lng-project-updates>