Alaska LNG to Tap US Loan Guarantee as it Targets SPAs

The 20-MMt/y Alaska LNG project is eligible for a $28 billion US federal loan guarantee and other forms of government support as it works to secure binding offtake agreements from Asian customers and bring in partners as developers.

The guarantee would offer the full faith and credit of the US government, rated triple A by Moody's and Fitch and AA+ by Standard & Poor's, to backstop loans that will be used to fund the project. The Alaska LNG project includes a three-train liquefaction plant, jetty, two loading berths and two 240,000 m^3 LNG tanks at Nikiski, and an 800-mile pipeline to bring 3.3 Bcf/d of gas from a treatment plant which processes feedstock from conventional fields at Alaska's North Slope (see Map).

The guarantee, for debt up to $28 billion and for a 30-year term, would be provided under the Alaska Natural Gas Pipeline Act that was put on the statute in 2004. Recent legislation made the Alaska LNG project eligible for this existing guarantee. In 2004 the project would have qualified for $18 billion but the value has gone up to $28 billion in step with annual increases in the consumer price index.

The project company would apply for the guarantees through the US Department of Energy (DOE). This would reduce risk for its financiers. It would allow US domestic and international banks to apply less capital to loans under guidelines they follow for risk-weighting assets, so they could ultimately increase the amount of funding they are able to provide. Investment grade guarantees also help to keep a lid on the margins (profits) banks charge for loans.

Government support over a 30-year term also offers risk mitigation. Despite the current global push to secure gas to bolster energy security after Russia's invasion of Ukraine, there is concern that over the longer term the profitability of global liquefaction projects could come under threat from decarbonization agendas.

The cost of developing Alaska LNG was put at $38.7 billion in 2020, but that will be updated when the front-end engineering design (FEED) is completed. The engineering, procurement and construction award and final investment decision (FID) are targeted for 2024 and first LNG production is planned for 2030. AGDC is seeking funds for FEED – estimated to cost $100 million – from venture capital providers and infrastructure funds in the US and Europe.

ECAs to be tapped

The large capital outlay for Alaska LNG means that for post-FID development all available sources of funding will need to be tapped and, in addition to domestic and international commercial banks, will include export credit agencies (ECAs).

Alaska is the first US LNG export project to apply for funding under a new domestic initiative developed by Export-Import Bank of the United States (EXIM) and has been notified that it will receive a letter of intent on funding from the US ECA. EXIM has provided billions of dollars to foreign liquefaction projects, with its largest loan for the LNG sector being $4.7 billion, agreed in 2020 for Mozambique LNG, but until recent changes in EXIM's rules, funding domestic LNG export schemes had been off limits (see **LNGWM**, Feb '22).

Japanese financiers have also shown interest in the project – a summit to advance Alaska LNG was held in October in Tokyo – and it could qualify for funding from the Japan Bank for International Cooperation as well as other ECAs depending on the host countries of the offtakers, equity investors and equipment manufacturers.

While US government support will help Alaska LNG to attract customers and financiers, the limited recourse project financing planned for the scheme must be well structured and supported by robust commercial arrangements. To meet its capital expenditure requirements Alaska LNG is targeting around 70% debt and 30% equity (see **LNGWM**, Sep '20).

It will need to sign long-term contracts with investment-grade counterparties to provide financiers with the security that cash flows will be sufficient to service debt. Long-tenored loans are needed for the high level of capital expenditure envisaged. Alaska Gasline Development Corp. (AGDC), which is an independent public corporation of the State of Alaska tasked with unlocking the value of Alaska's stranded assets, is in discussions with several banks to secure a financial advisor for the Alaska LNG project.

Asia offtake targeted

AGDC is targeting Asian customers, given the West coast project's shorter shipping distance and thereby lower freight costs to

Alaska Gas Infrastructure

these markets. It takes 7-9 days to ship LNG from Alaska LNG to Japan at a cost of around 70¢/MMBtu compared to 38 days and around $1.80/MMBtu from Sabine Pass in Louisiana.

AGDC is holding discussions with buyers from Japan, Korea, China and smaller buyers in Asia looking to increase LNG imports. Startup in 2030 would coincide with the expiration of some of the Japanese buyers' long-term LNG contracts. However, discussions may be slow because buyers are mostly focused on securing supply for 2026 or 2027 onwards.

AGDC is trying to turn letters of intent and memoranda of understanding into 20-year SPAs. It is also understood to be engaging with portfolio players looking to diversify and optimize their supply offerings with a west coast offering from the US. AGDC has now shifted Chinese discussions to offtake rather than funding – a few years ago large loans from China were a big part of development talks (see **LNGWM**, Nov '17).

Alaska's gas is stranded and fully disconnected from any market, which gives it pricing flexibility. The main requirement is to ensure that tolls are sufficiently covered – AGDC has proposed a tolling structure for the gas treatment plant and pipeline. If it meets the tolling costs, it is able to offer long-term fixed-price, Brent or JKM-indexed, or even Henry Hub-style pricing. Cost of supply is currently estimated at $6.50/MMBtu and would be the sum of the gas price, gas treatment toll, pipeline toll, liquefaction cost and shipping to Asia (see Table).

AGDC is not planning to develop the project itself and is looking to bring in equity investors, which include international oil companies (IOCs), LNG developers and other equity partners, possibly including multinational pipeline company Enbridge which is headquartered in Calgary, Canada. The IOC group does not include the existing North Slope gas producers, who for now are confining their activities to supplying feedstock.

AGDC is continuing to negotiate terms and conditions for feedgas with the producers which comprise ExxonMobil, ConocoPhillips and Hilcorp. The latter bought BP's upstream Alaska business in July 2020. Combined gas feedstock from the Prudhoe Bay and Point Thomson fields is 11% carbon dioxide, which will be captured and sequestered in the Prudhoe Bay reservoir. The processed gas then flows through the pipeline to the liquefaction facilities in the south. The project will qualify for tax credits worth almost $600 million per year for capturing carbon dioxide under the 45Q provision of the US tax code.

Green production plans

All of Alaska LNG's carbon dioxide will be captured and sequestered rather than vented, which, along with a relatively short shipping distance to market means it will emit less carbon dioxide than many of its peers, according to an independent study commissioned by AGDC. This was verified by the DOE through its supplemental environmental impact statement (EIS).

The DOE normally provides 20-year export authorization but has given Alaska LNG 30 years because the North Slope gas is stranded. The project is now fully permitted, with the DOE finding that its activities, along with consumption of its production in Asia, do not significantly increase greenhouse gas emissions. Replacing coal with cargoes from Alaska LNG in Asia reduces carbon dioxide emissions by 77 MMt/y. The Alaska LNG project has now secured all its approvals, which include the Federal Energy Regulatory Commission EIS and 36 other permits/authorizations.

AGDC has engaged with indigenous groups on the project, including communities on the North Slope to ensure that delivery of modules will not impact subsistence whaling. Modular construction is planned for the gas treatment plant on the North Slope, liquefaction facility in Nikiski and compressor stations along the pipeline.

AGDC, Japan's Mitsubishi Corp., Toyo Engineering Corp. and Hilcorp are evaluating the feasibility of capturing and storing carbon dioxide and producing ammonia near Alaska LNG at the Cook Inlet (see **LNGWM Mid-Month**, Oct '22). The depleted reservoirs of the Cook Inlet can sequester 50 gigatons of carbon. Gas can be provided to the mothballed Nurtrien (previously Agrium) ammonia facility at Cook Inlet in the south, although this would require additional investment. AGDC has also submitted a proposal to the DOE for an Alaska hydrogen hub (see **LNGWM Mid-Month**, Nov '22).

The plan to reduce carbon dioxide emissions through sequestration and offer greener products in the future, such as ammonia and hydrogen, aims to appeal to Asian offtakers because it will help them meet their emission reduction goals. It is also targeted at financiers because commercial banks are under pressure to reduce greenhouse gas emissions in their loan portfolios.

Alaska LNG Project

Alaska LNG Project	Production Costs - Breakdown	$/MMBtu
40 Tcf proven gas reserves from:	Gas supply and fuel	1.15
ExxonMobil, ConocoPhillips, Hilcorp		
Gas Treatment Plant - North Slope	Gas treatment and processing	1.15
CO2 removed		
CO2 captured in Prudhoe Bay Reservoir		
Pipeline	Pipeline charges	1.30
800 miles, 3.3 Bcf/d		
Liquefaction - Nikiski	Liquefaction	2.20
3 trains x 6.67 MMt/y = 20 MMt/y		
	Shipping*	0.70
Total		**6.50**

**Sabine Pass cost to Japan is ~$1.80*

Source: AGDC

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