## President's Report

Frank Richards, President September 22, 2022



## Safety Moment



#### Stay Visible, Stay Safe!

As Alaskan days get shorter, our daily activities and exercise can get pushed into the darker hours of the evening or early morning. While walking pets, exercising, or heading to the bus stop, take extra precautions to make sure other pedestrians and motorists can see you. In areas where light is limited, make sure you can see where you are going.

#### Here are a few items that will help keep you safe and visible:

- Flashlight or headlamp
- Reflective clothing, belt, vest or arm/ankle bands
- Markers such as LED zipper pulls
- Bike mounted lights
- Reflective or lit dog leashes and collars









## **Primary Focus Areas**



- General Corporate Update
  - FY22 and FY23 Financial Reports
  - Strategic Plan Actions
- LNG Market Update
- Venture Development Update
- Alaska Congressional Support
- Environmental, Regulatory, and Lands (ERL)
   Update
- Alaska Hydrogen Update

#### FY22 Year End Financial Report



#### ALASKA GASLINE DEVELOPMENT CORPORATION

**Fiscal Year to Date Statement of Activities** 

(in thousands of dollars)

as of June, 2022 Unaudited

	YTD Costs
LNG Project Expenditures	3,818
AGDC General & Admin	2,708
Total	6,526

#### **LNG Project Expenditures**

	YTD Costs
Venture Development	1,309
Core PMT & Systems	1,768
ERL	1,768 <b>5</b> 741 <b>6</b>
Total	3,818

#### **General and Administrative by Function**

	YTD Costs
Personnel	1,368
Travel	36
Services	1,168
Commodities	82 <b>Func</b>
Depreciation	54 <b>ctio</b>
Total	2,708

## FY23 Financial Report – September 2022 ALASKA GASLINE



#### ALASKA GASLINE DEVELOPMENT CORPORATION

**Fiscal Year to Date Statement of Activities** 

(in thousands of dollars)

as of July, 2022 Unaudited

	YTD Costs
LNG Project Expenditures	275
AGDC General & Admin	128
Total	403

#### **LNG Project Expenditures**

	YTD Costs
Venture Development	229
Core PMT & Systems	22
ERL	25
Total	276

#### **General and Administrative by Function**

		YTD Costs
Personnel		47
Travel		0
Services		71
Commodities		9 13
Depreciation		1 ction
	Total	128

## Strategic Plan Actions



# AGDC STRATEGIC PLAN 2022/2023 TACTICAL ACTION PLAN

NO	ACTION	DUE DATE	ASSIGNED RESPONSIBILITY
1	PROJECT PERMITS AND AUTHORIZATIONS		
1A	Action for Major Permits and ROW as Appropriate for Project Development	6/30/2023	Lisa Haas
1B	Maintain Existing Permits & Authorizations	Ongoing	Lisa Haas
1C	Populate and Maintain Compliance Management System	Ongoing	Lisa Haas
1D	Implement Cultural Resources Management Plan	Ongoing	Lisa Haas
1E	Monitor and Support Legal Case Responses and DOE SEIS Development in Coordination with Alaska LNG Project LLC	Ongoing	Lisa Haas
1F	Update Permit Plan to Fit Project Development Schedule	6/30/2023	Lisa Haas
1G	Support Transition to Lead Parties	6/30/2023	Lisa Haas

## Strategic Plan Actions (continued)



# AGDC STRATEGIC PLAN 2022/2023 TACTICAL ACTION PLAN

2	PROJECT VENTURE DEVELOPMENT		
2A	Extend the Letter Agreement with Strategic Parties	12/31/2022	Nick Szymoniak
2B	Extend the Pipeline Lead Party Preliminary Agreement	Complete	Nick Szymoniak
2C	Execute Preliminary Agreement with Lead Party for the LNG Facility Subproject	9/30/2022	Nick Szymoniak
2D	Advance Term Sheets for Project Development Agreements to Govern FEED	12/31/2022	Nick Szymoniak
2E	Develop and Maintain a Risk Register that Identifies Risks to be Allocated in the PDAs and Supporting Agreements	12/31/2022	Nick Szymoniak
2F	Develop an Updated Project Timeline for FEED Stage Gate, FID, and COD	12/31/2022	Nick Szymoniak
2G	Maintain and Update the Alaska LNG Economic Models	Ongoing	Nick Szymoniak
2H	Submit FY23 AFE for Board Approval	Complete	Frank Richards
21	Advance Government-to-Government Relationships and Agreements to Compliment International Commercial Agreements	Ongoing	Nick Szymoniak
2J	Support the 3 <sup>rd</sup> Party Ancillary Agreements Necessary to Approve FEED ( <i>e.g.</i> , gas supply, LNG sales)	Ongoing	Nick Szymoniak
2K	Finalize 8 Star Alaska, LLC Governance and Project Financing Plan to Transition Alaska LNG Control to 3 <sup>rd</sup> Parties	3/30/2023	Nick Szymoniak
2L	Support Development of 3 <sup>rd</sup> Party FEED Decision Support Package	3/30/2023	Nick Szymoniak
2M	Approve PDA's and Transition to 3 <sup>rd</sup> Party Control to Execute FEED	6/30/2023	Board of Directors
2N	Transition to Lead Parties within 8 Star Alaska, LLC Governance	6/30/2023	Brad Chastain

## Strategic Plan Actions (continued)



# AGDC STRATEGIC PLAN 2022/2023 TACTICAL ACTION PLAN

3	PROJECT OPTIMIZATION & COMPETITIVENESS		
3A	Advance Discussion on Alaska LNG Property Tax Rationalization with State Legislature and Communities	Ongoing	Nick Szymoniak
3B	Facilitate 3 <sup>rd</sup> Party Work to Achieve the Alaska Fiscal Stability Required for FID	9/30/2022	Nick Szymoniak
3C	Perform Prepare for FEED Optimization Studies	6/30/2023	Brad Chastain
4	PROJECT COMMUNICATION		
4A	Maintain and Enhance the Stakeholder Engagement Program	6/30/2023	Lisa Haas
4B	Inform Policymakers and Key Government Stakeholders	Ongoing	Frank Richards
5	PROJECT MANAGEMENT & TECHNICAL		
5A	Maintain Core PMT Staffing	6/30/2023	Brad Chastain
5B	Maintain Alaska LNG Data, Content, and Systems	6/30/2023	Brad Chastain
5C	Interface with Nikiski Blue Hydrogen Study	6/30/2023	Brad Chastain
5D	Lead the Alaska Hydrogen Hub DOE Proposal and Transition Upon Award	6/30/2023	Brad Chastain

#### Office Relocation – 3201 C Street



- July 1, 2022 Notified by JL Properties of a new tenant for the entire 2nd floor
- AGDC moving to 5<sup>th</sup> Floor Suite 505
- Smaller footprint right size for current staff
- Reduced lease cost
- Target move date October 3, 2022

# **LNG Market Update**



#### **LNG Market Status**



LNG and natural gas spot prices are at historic highs and are expected to remain high for the foreseeable future. This creates an opportune environment to develop Alaska LNG.



## **LNG Market Update**



- LNG markets remain steady at record highs
  - Europe TTF remains slightly above Asia JKM
  - Henry Hub has almost tripled over the year with increased LNG exports
- 2022 shaping up to be a record year for LNG contracts, with Gulf of Mexico LNG projects inking numerous 20-year deals
- U.S. LNG exports set to grow to 20% of total L48 natural gas production, putting long-term pressure on Henry Hub prices
  - At \$9/MMBtu, Henry Hub linked LNG contracts delivered to Asia now at more than \$15/MMBtu
  - Panama Canal restrictions leave LNG vessels waiting 2 weeks for transit
- Alaska LNG offers to unlock gas not connected to U.S. market

## **LNG Market Update**



- Best market in recent history for LNG developers speed is important
- The pace of new projects and agreements has picked with high LNG prices and the move away from Russian LNG supply
  - Venture Global took FID on Plaquemines LNG and is commissioning Calcasieu Pass (U.S. Gulf Coast)
  - Tanzania signs framework with Equinor and Shell to advance LNG project
  - TotalEnergies awarded stake in Qatar's LNG expansion project
- Move away from Russian LNG is remaking the LNG map
  - Europe is still buying piped Russian gas, scrambling to import more LNG
  - IOCs and LNG buyers are pulling out of Russian LNG projects and looking for new opportunities
  - JBIC suspended investment in Arctic LNG

"Liquefied Natural Gas Prices will Steam Up Again" – Wall Street Journal,
June 13, 2022

# Venture Development Update



#### Inflation Reduction Act & 45Q Tax Credits



- Recently signed Inflation Reduction Act increases the credit for CO<sub>2</sub> capture and sequestration to \$85/ton
- The GTP is planned to capture nearly 7 million tons per year for a total credit of nearly \$600 million per year
- This credit is up to 75 million tons or 12 years a total of over \$6 billion
- The first 5 years of credits can be a direct payment this extends to the life of the credits for non-taxable entities (such as state governments)
- The GTP is now being promoted as the Arctic Carbon Capture
   Plant the largest carbon capture plant in the world

#### **Commercial Advances**



- Active discussions with potential LNG Lead Party
  - Operating LNG companies showing interest in expanding to Alaska
  - Financial investors with experience standing up new LNG developers
  - Japanese interest in forming a consortium to lead LNG development
- Project team working with Pipeline Lead Party on starting early pipeline work
- LNG Buyers continue to show interest
  - Starting discussions with large portfolio buyers
  - Extended/signed Letters of Intent (LOI) with legacy Asian buyers
  - Continued engagement with Asian growth markets
- Began negotiations for North Slope gas supply agreements
- Commercial work is almost entirely confidential

## LNG Lead Party & 8 Star Options



- Over the last 12 months, AGDC has focused on bringing a qualified LNG developer to step into the project through 8 Star Alaska, LLC (8 Star) and lead project execution
- AGDC is also directly engaging financial investors to raise capital and stand up 8 Star as a functioning, standalone project developer
  - Similar to the model deployed by Venture Global, Freeport LNG, others
- The options are complimentary, not mutually exclusive
  - All project equity will come through 8 Star so legal/commercial structure remains unchained
  - Early financial investment in 8 Star will allow further project development, which may make it easier to transition to another LNG Lead Party in the future
- 8 Star will continue to advance Alaska LNG utilizing outside investment

#### **Gastech Conference**



#### Conference in Milan, Italy:

- Attended by Venture Development team
- Opportunity to have face-to-face meetings with potential LNG developers, buyers, and investors
- LNG Buyers: Team made progress on all fronts with buyers desiring binding sales agreements, term sheets, and new engagement
- Financial investors: met with multiple investors with development interest in 8 Star Alaska

#### **Meetings held with:**

LNG Portfolio Buyers
 LNG Lead Parties
 Investors



EXHIBITION & CONFERENCE FIERA MILANO, ITALY 5-8 SEPTEMBER 2022

## U.S. – Japan Coordination



- Tokyo Gas Visit
  - Representatives came to Alaska in August
    - Nikiski site visit
    - Meeting with producers
- Continued coordination between AGDC, State of Alaska, and the U.S. Embassy in Japan
  - Embassy inter-agency work group formed
  - Follow-up meetings on-going with plans to continue working as project advances

## Net Zero Pathway



- Japan and Korea have set net-zero targets of 2050
  - With Alaska LNG commercial operations starting around 2030, traditional 20-year contracts push up against this date
  - Japan and Korea buyers struggle to make firm commitments for LNG beyond
     2050
- AGDC holding firm to a 2024 FID to enable commercial operations before 2030
- Net-zero "Energy Contracts" may allow more flexibility for these buyers
  - 30-year commitments on GTP and Pipeline bring down unit costs by amortizing over longer period
  - This allows a shorter commitment to LNG (12-14 years), raising the LNG plant unit cost
  - Buyers can either continue with LNG after that period or shift to clean hydrogen/ammonia
- Cook Inlet carbon sequestration potential may allow for either CO<sub>2</sub> backhauls from buyers and/or Direct Air Capture "DAC" to achieve net-zero as an alternative to clean hydrogen/ammonia

## Cook Inlet Gas Supply



- AGDC continues to meet with railbelt utilities group:
  - Defining project status and schedule
  - Reviewing cost of supply economic model
- The Alaska LNG Project and the pipeline are the best option to replace Cook Inlet gas:
  - Secure, low-cost supply for Alaskans
  - If not constructed, Alaska may need to import LNG to replace Cook Inlet gas



#### Gas For Alaskans

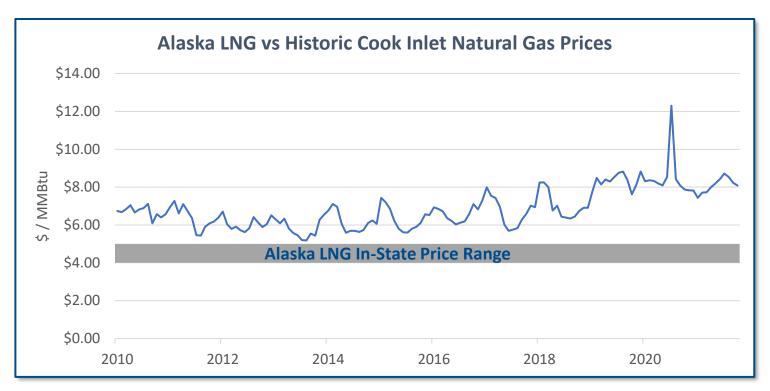


#### **Low-Cost Gas for Alaskans**

- The Alaska LNG in-state price is estimated to be between \$4 - \$5 per MMBtu
- Significant reduction from current prices, saving Alaskans hundreds of dollars per year

#### **Enough Gas for Alaskans**

- The pipeline is designed to supply more natural gas than the LNG plant needs
- Enough capacity for in-state demand to more than double



Source: EIA

# Alaska Congressional Support



## Alaska Delegation Support



- Senator Sullivan continues to promote Alaska's huge natural gas resources
  - Actively engaged with U.S. Embassy in Japan on Alaska LNG opportunities, emphasizing:
    - U.S. has shared values and provides geopolitically stable source of energy
    - Energy supply from strategic partner
    - Strengthens trade relationships
    - Alaska LNG has all federal permits
    - Alaska has best carbon sequestration potential on Pacific coast of North America
- Senators Murkowski and Sullivan sent a joint letter of support to EXIM
- Working with both Senators Sullivan and Murkowski on federal permit streamlining and reform language

Environmental, Regulatory, and Lands Update



## **ERL** Update



- Ongoing maintenance of issued permits and approvals to remain in compliance
- Liquefaction facility air permit issued by the Alaska Department of Environmental Conversation on July 7, 2022
- Borehole permit closure underway
  - Department of Natural Resource permits 2014-2016
- Significantly increased stakeholder engagement
- Legal cases
  - FERC Order
  - DOE Authorization

## FERC Order Legal Proceedings



- 2014-2017 Prefiling activities
- April 17, 2017 Natural Gas Act Section 3 Application filed by AGDC
- May 21, 2020 Alaska LNG Project FERC Order Issued
- June 22, 2020 Interveners filed requests for rehearing
- July 22, 2020 FERC denied the rehearing request
- September 11, 2020 FERC modified discussion in the Order
- September 22, 2020 CBD & Sierra Club filed appeal in DC Circuit Court
- September 13, 2021 January 18, 2022 All parties filed required briefs
- September 14, 2022 Oral arguments in front of three-judge panel
  - FERC and AGDC's attorneys vigorously defended the FERC environmental impact statement and FERC Order
  - Strong case was presented to uphold the FERC Order
- Court decision will be in 3-12 months

Note: Continued challenges to NEPA are the subject of multiple court cases

## **DOE Order Legal Proceedings**



- March 16, 2020 Department of Energy (DOE) formally adopted the FERC EIS
- August 20, 2020 DOE issued license for export to Non-Free Trade Agreement (NFTA) Nations
- September 21, 2020 Sierra Club filed Request for Rehearing
- April 15, 2021 DOE issued the Rehearing Order
  - Granted Sierra Club's Rehearing Request for conducting 'Alaska environmental study proceeding'
  - Denied Sierra Club's request to withdraw the Order
  - Acknowledged two recent Executive Orders
    - E.O. 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis
    - E.O. 14008, Tackling the Climate Crisis at Home and Abroad
- July 2, 2021 DOE announced intentions to prepare a Supplemental EIS (SEIS) for the 'Alaska environmental study proceeding'

## **DOE Supplemental EIS**



- DOE Developed an SEIS to address two issues identified in a Sierra Club challenge to their Alaska LNG authorization
  - Upstream analysis of potential environmental impacts associated with natural gas production on the North Slope
  - Lifecycle analysis (LCA) calculating greenhouse gas (GHG) emissions from upstream wells through downstream power generation and distribution
- DOE's National Energy Technology Laboratory (NETL) was commissioned to do the studies
- Major milestones
  - June 24, 2022 Draft SEIS was issued for public comment
  - July 20, 2022 Virtual public meeting
  - August 15, 2022 End of comment period
  - November 14, 2022 Final SEIS
  - February 13, 2023 Final Order and NEPA Record of Decision

#### **DOE Draft SEIS**



- Substantive document Almost 1,000 pages
- Major findings
  - The Prudhoe Bay Unit and Point Thomson Unit have sufficient gas to supply the Project for the entire 30-year term of the export license
  - None of DOE's analyses of upstream impacts were ranked Significant or Adverse
    - Upstream resource impacts were identified as negligible, less-than-significant or a range between those two options
    - Socioeconomic evaluation was beneficial to negligible
  - Cumulative impacts could be mitigated
  - Alaska LNG Project would not increase GHG emissions compared to the Business As Usual (no Alaska LNG Project) scenario
  - LNG from Alaska to Asian markets is expected to have a lower GHG emissions impact as compared to LNG from the U.S. Gulf Coast
  - There were 200 SEIS comments
    - 182 Supportive (91%) Strong Alaska input
    - 3 Technical/Neutral (1.5%)
    - 15 Not Supportive (7.5%)

#### DOE Litigation – Other Developments



- August 15, 2022 The Center for Biological Diversity and Cook
   Inletkeeper filed a Motion to Intervene in the DOE case
- On that same date, Sierra Club, Earthjustice, Center for Biological Diversity, and Cook Inletkeeper jointly submitted 65 pages of comments on the SEIS
- August 30, 2022 AGDC opposed the intervention request
  - Intervention requests were due November 17, 2014
  - The group did not show good cause for intervening almost 8 years later
  - Allowing intervention at this late date would introduce additional delays
  - The group's interests are more than adequately represented by the existing party (Sierra Club) as evidenced by their joint SEIS comments
- September 7, 2022 AGDC filed response to the group SEIS comments
- September 12, 2022 Alaska LNG Project LLC filed comments in support of AGDC's intervention opposition and SEIS comment response

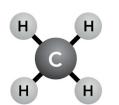
# Alaska Hydrogen Update



## Clean Hydrogen

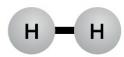


#### **Natural Gas**



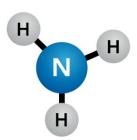
Methane hydrocarbon releases CO<sub>2</sub> when burned, somewhat difficult to store and transport

#### Hydrogen



Fuel releases no CO<sub>2</sub> when burned, very difficult to store and transport

#### **Ammonia**



Fuel releases no CO<sub>2</sub> when burned, somewhat easy to store and transport

#### **Conversion of Natural Gas**

- Natural gas can be converted into hydrogen and then into ammonia
- The existing Nutrien ammonia plant in Nikiski uses this process

#### CO, Sequestration

- The process to convert natural gas into hydrogen and ammonia produces CO<sub>2</sub>
- If this CO<sub>2</sub> is captured and sequestered, the resulting "Blue Ammonia" is a clean fuel

#### **Hydrogen vs Ammonia**

- Both hydrogen and ammonia are "clean fuels" that do not emit CO<sub>2</sub> when burned
- Hydrogen is converted into ammonia to make storage and transportation easier
- Ammonia is included in projections of clean hydrogen demand

## Track 1 – Japanese Consortium



- AGDC signed MOU with consortium of Japanese and American companies
- Amendment adding additional parties to the MOU is in process
- Lead company will be managing the feasibility study
- Possibility of shipping participant entering the MOU
- Next steps will be CO<sub>2</sub> sequestration data exchange and consortium proposal for funding in Q2 2023









## Track 2 - Alaska H2Hub Proposal



- Nutrien's existing ammonia plant and Hilcorp's oil and gas production infrastructure identified as key advantages
- Japanese consortium invited to participate as one team
- AGDC is leading the opportunity evaluation and proposal execution
- Next milestone will be Funding Opportunity Announcement (FOA) and go/no-go stage gate















#### Alaska H2Hub

Subsequent Phases/Awards
Phase 2 – Develop, Permit, Finance
Phase 3 – Install, Integrate, Construct
Phase 4 – Ramp-Up & Operate



#### Alaska H2Hub - Proposal Schedule

Updated following Notice of Intent (NOI) – June 6, 2022

"...followed by DOE notification encouraging or discouraging submittal of full applications approximately four weeks later."

2 D00 3 Dr 4 D0 5 G0 6 Cc 7 Cc 8 D0															٥	pprox	umate	ly fou	wee	KS Ial	ei.			
15	Task Name	Charact	Fininh		Q1 22		Q2 22	Q3 22			Q4 22				C1 23	1 23		Q2 23		Q3 23			Q4 23	
ID		Start	Finish	Duration	Feb Mar	Apr	May J	un Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
1	Capture Strategy & AGDC Ramp-up	2/25/2022	8/31/2022	188d																				
2	DOE RFI Period	2/15/2022	3/21/2022	35 d																				
3	Draft FOA Period – Team Development	5/15/2022	8/31/2022	109d																				
4	DOE FOA Release	9/1/2022	10/31/2022	61d					/															
5	Go/No-Go Decision	11/1/2022	11/1/2022	Od							•	<b>&gt;</b>												
6	Concept Papers Decelopment	10/1/2022	11/30/2022	61d																				
7	Concept Papers Submission to DOE	11/1/2022	11/30/2022	30d																				
8	DOE Full Application Request	12/15/2022	1/15/2023	32d																				
9	Full Application Development	1/1/2023	4/30/2023	120d				/																
10	Full Application Submittal	4/15/2023	4/30/2023	16d																				
11	DOE Phase 1 Award	7/1/2023	9/1/2023	63 d		/																		
	Phase 1 – Detailed Plan Up to \$10M DOE Funding Non-Federal Share ≥50% 12–18 Months Duration 6-10 Awards		iss S	"OCED antionsuing the FC eptember/C2022 timefra	OA in the October		requ pap 6-8	uest tha ers bes weeks	will likel at conce submitte after th eas ed'	pt ed -/ e	re m	quest onths	plicati ted app follow tion."	proxin	nately					mo	nths t	o revi	uire sev ew app rdees.	

# AGDC.us

