



LAUNCH ALASKA

Clean Hydrogen Hub in Upper Cook Inlet, Alaska
House Transportation Committee Presentation

March 21, 2023

LAUNCH ALASKA

Founded in 2016 in Anchorage, Launch Alaska is a nonprofit organization on a mission to **accelerate the energy transition and decarbonize the globe, starting in Alaska.**

We cultivate partnerships to connect **climate tech companies** and **customers**, catalyze Alaska's **clean energy economy**, and build a regenerative future for all.

LaunchAlaska.com

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U.S. DEPARTMENT OF
ENERGY

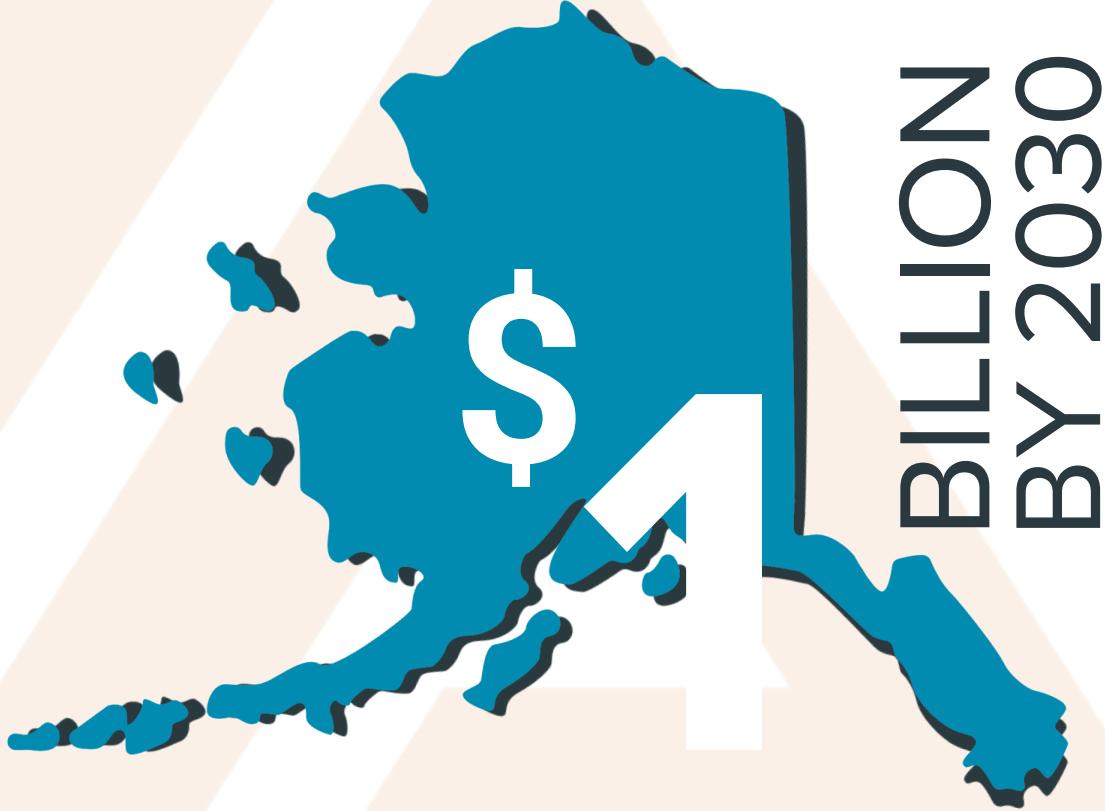
Office of
TECHNOLOGY TRANSITIONS



McKINLEY ALASKA
PRIVATE INVESTMENT, LLC



Our Objective



Portfolio Companies

Energy



Transportation



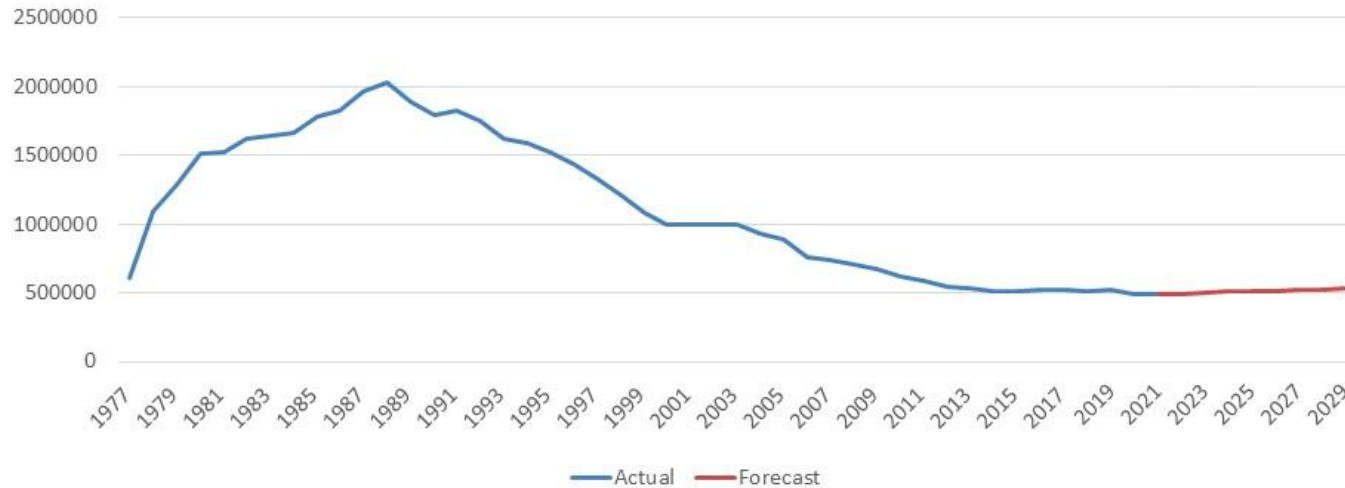
Industry



Economic Headwinds for Alaska

- Clear Long-term Declines in Oil and Gas Production
- Natural Gas Prices about to increase steeply
- Without rapid action, we risk missing the once-in-a-generation opportunity that the Bipartisan Infrastructure Law represents

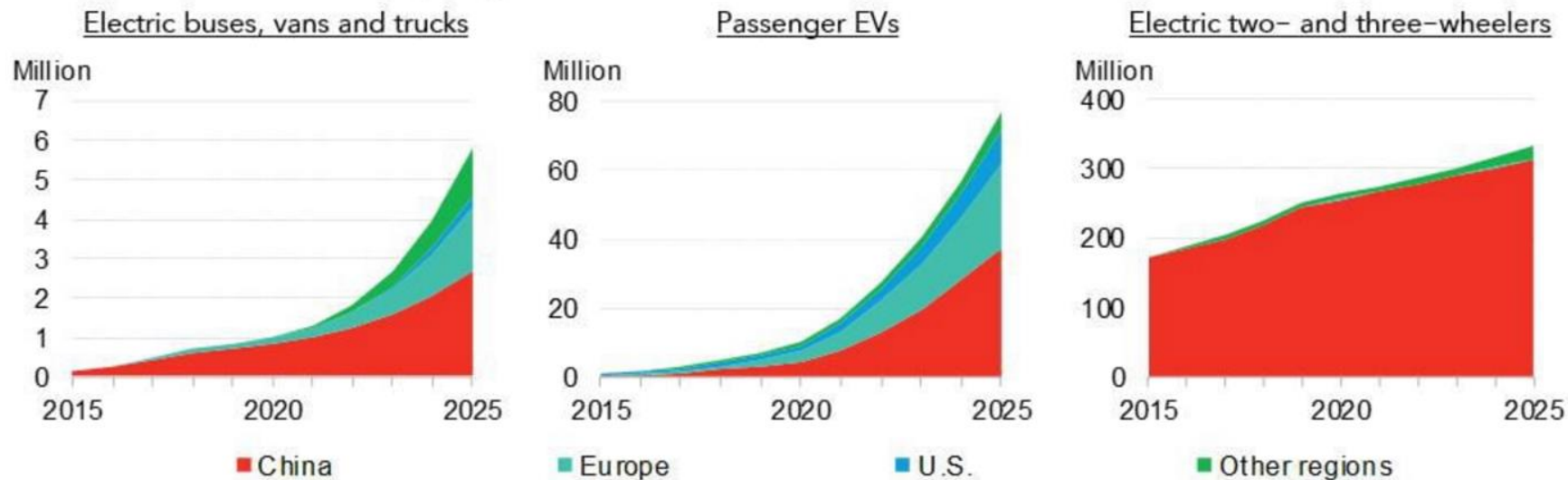
TAPS Throughput (MBD)



Source: Alyeska Pipeline

Forecast figures: State of Alaska DOR, Spring 2022 Forecast.
Actual figures are calendar year; forecast figures are State of Alaska fiscal year

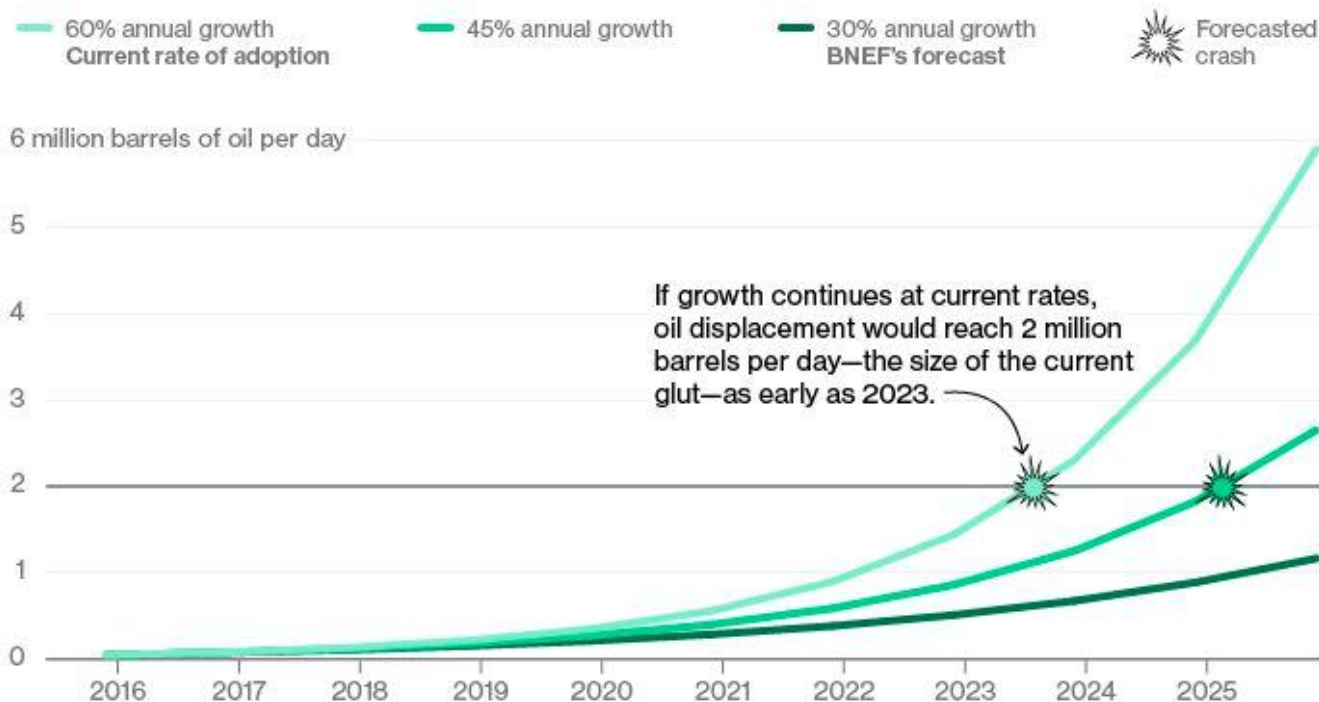
Global EV fleet sizes by segment and market



Source: BNEF. Note: Two-wheelers includes mopeds, scooters and motorcycles, excludes e-bikes.

Predicting the Big Crash

The amount of oil displaced by electric cars depends on when vehicle sales take off. Here are three scenarios for rising EV sales.



Source: Data compiled by Bloomberg

Business/Economy

[Click to go back, hold to see history](#)

Alaska's overall economic performance among the worst in US for several years, research finds

By Alex DeMarban

Updated: December 5, 2022

Published: November 17, 2022



= OVER 5X

ANNUAL CONSUMPTION OF THE UNITED STATES



ALASKA

21,000

TERAWATT HOURS
OF ANNUAL RENEWABLE
POTENTIAL

OIL EXPORTS
SINCE 1980

TOTAL OF **27,000**
TERAWATT HOURS



2 YEARS

OF ALASKA'S ANNUAL
RENEWABLE POTENTIAL

ANNUALLY **21,000**
TERAWATT HOURS

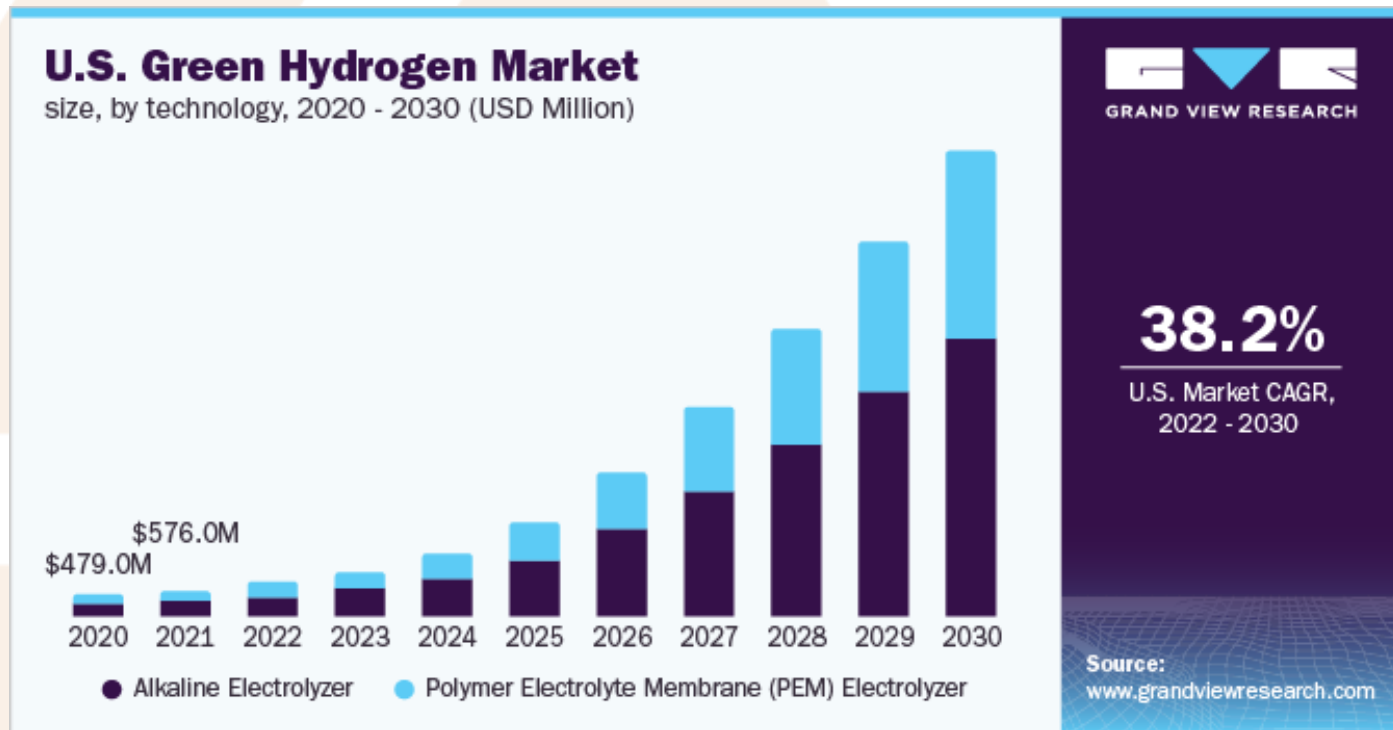
THE NEXT 40 YEARS
480 BILLION BARRELS OF OIL

Known Potential

- Alaska's stranded renewable energy assets
- Historically hindered by costs and market
- The cost barrier is being solved by our natural gas emergency

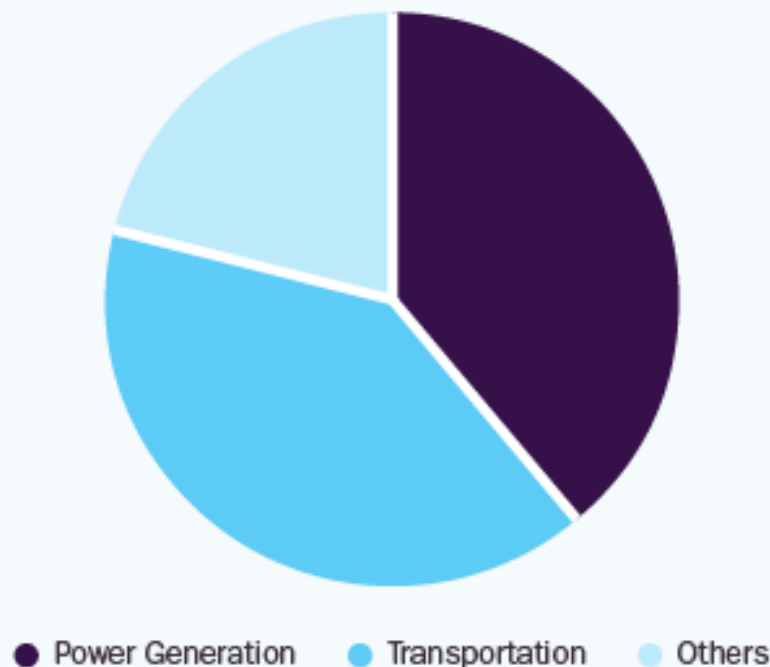
Enter Clean Hydrogen

Hydrogen **Creates a Market** for Alaska's vast renewable energy



Global Green Hydrogen Market

share, by application, 2021 (%)



GRAND VIEW RESEARCH

\$3.2B

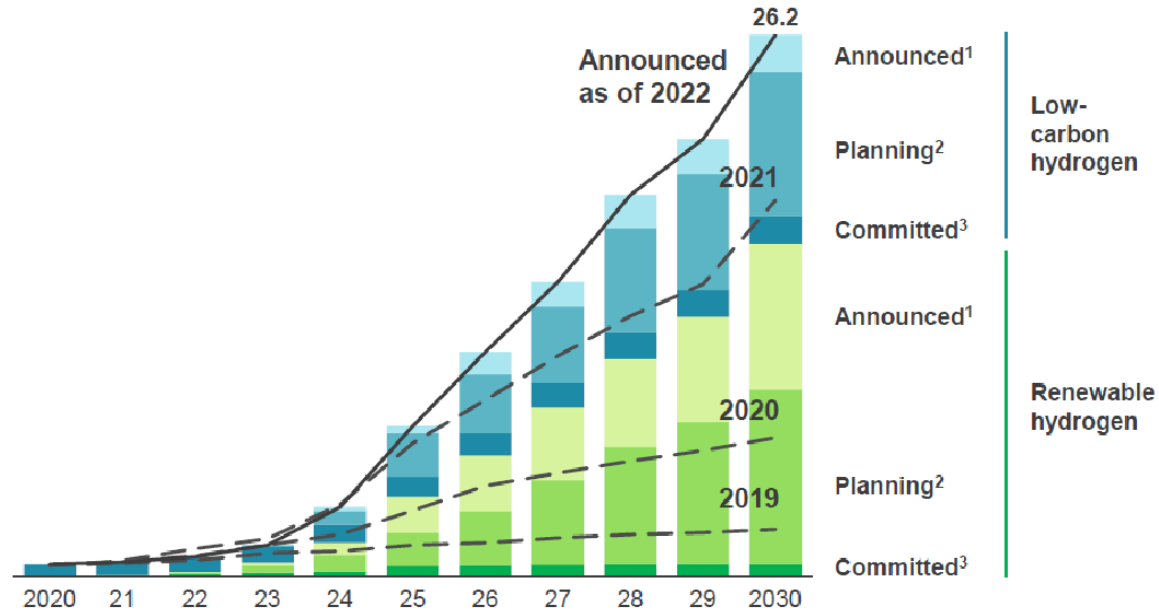
Global Market Size,
2021

Source:
www.grandviewresearch.com

Exhibit 5 – Announced clean hydrogen production volume by pathway

Cumulative production capacity, MT p.a.

As of May 8, 2022



¹ Preliminary studies or at press announcement stage

² Feasibility study or front-end engineering and design stage

³ Final investment decision has been taken, under construction, commissioned or operational

International Shipping

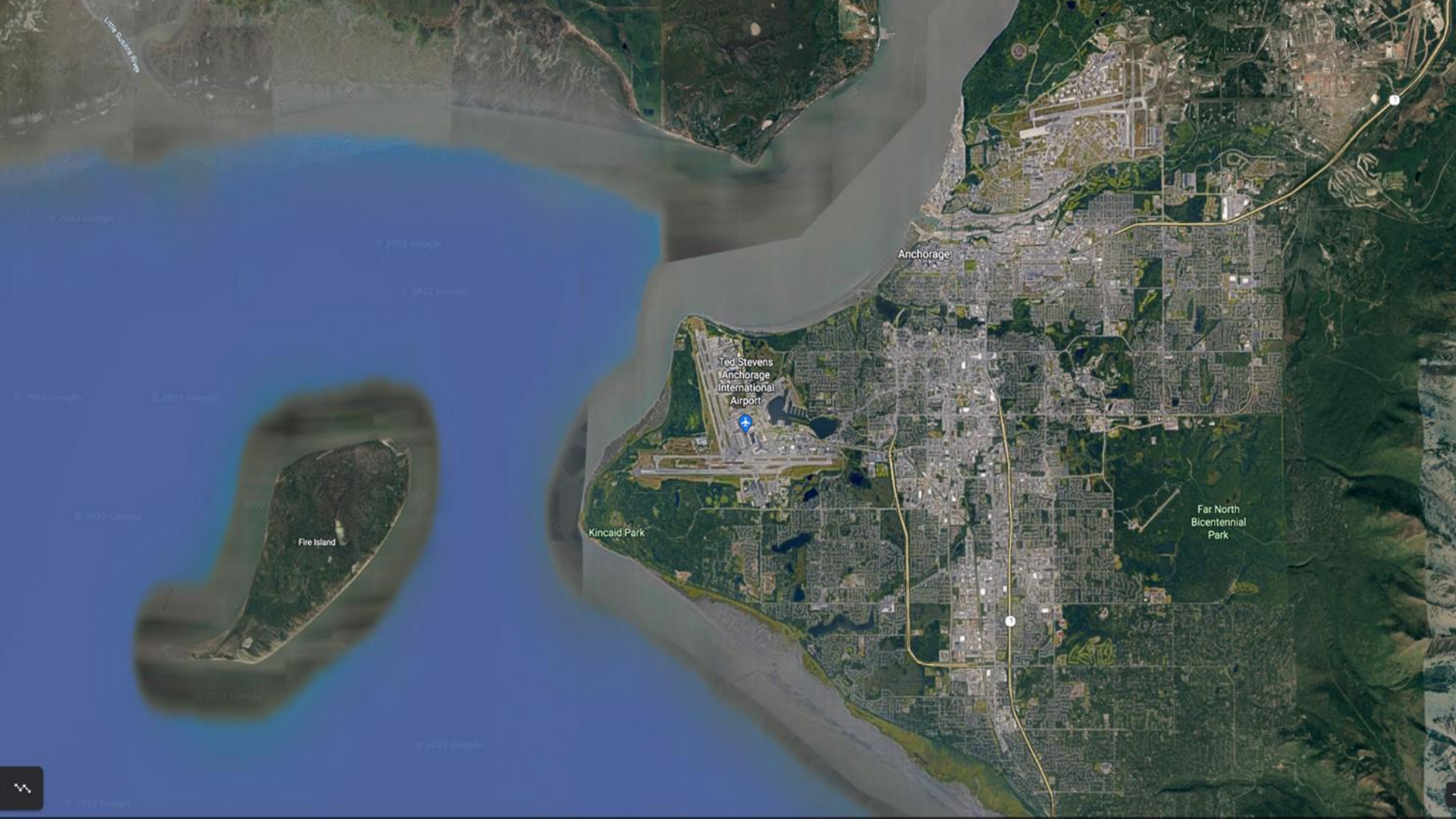


● Not on track

Aviation



● Not on track



Economic Benefits

- Job creation, reduced energy costs, and increased revenue for the region
- Major incentives and investments available from Bipartisan Infrastructure Law
- A clean hydrogen facility is well-positioned to qualify for "additionality" requirements
- Stabilization of energy prices
- Private sector investment leading the way
- Establishing a presence in emerging industries
- Attracting startups and innovators
- Supporting local companies and jobs through the energy transition

Port of Alaska

Microgrid



Objectives

- Stabilize & reduce power costs
- Increase system reliability
- Optimize operations
- Ensure business continuity
- Reduce environmental impact



Upper Cook Inlet Marine Alliance

*Advising on the creation of a unified
Port of Alaska-Port MacKenzie
power system and industrial
'symbiotic' park*



Ravn Alaska To Buy 30 ZeroAvia Hydrogen-Electric Engines For Dash 8 Turboprops

The agreement could mean regional zero-emissions air travel in Alaska from 2026.

BY LINNEA AHLGREN PUBLISHED JUL 20, 2022



ZEROAVIA MAKES AVIATION HISTORY, FLYING WORLD'S LARGEST AIRCRAFT POWERED WITH A HYDROGEN-ELECTRIC ENGINE

23rd January 2023

Gloucestershire-based aeronautics innovator ZeroAvia has made aviation history, flying the largest aircraft in the world to be powered by a hydrogen-electric engine.

The leader in zero-emission aviation took to the skies for the maiden flight of its 19-seat Dornier 228 testbed aircraft, retrofitted with a full-size prototype hydrogen-electric powertrain on the left wing of the aircraft.

The flight took place from the company's R&D facility at Cotswold Airport at Kemble, Gloucestershire and lasted 10 minutes.

The aircraft completed taxi, take-off, a full pattern circuit, and landing.



Larry Fink says the next 1,000 unicorns will be green energy

PUBLISHED TUE, JAN 18 2022-11:01 AM EST

Catherine Clifford
@IN/CATCLIFFORD/
#CATCLIFFORD

KEY POINTS

- The next 1000 billion-dollar start-ups will be those "that help the world decarbonize and make the energy transition affordable for all consumers," wrote BlackRock CEO Larry Fink in his annual letter.

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Conclusion

- **Upper Cook Inlet Clean Hydrogen**

- A massive economic development opportunity, with little downside
- Puts us on a path to stable and abundant electricity to light and heat our homes, and to power our vehicles
- Provides a long-term source of employment and jobs
- Shows that we're open for the industries of tomorrow

Call to Action

- **Massive increases in annual renewable energy production** every year for the next decade
- Create an **Energy Transition Plan** to show alignment between Legislature, Regulatory Commission of Alaska, Alaska Energy Authority, DOT&PF, Governor's Office, and Utilities
- Pass a **Renewable Portfolio Standard** or a very aggressive Clean Energy/Electricity Standard



LAUNCH ALASKA

Thank You

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