

AOGA

Industry Overview

Fall 2022

Kara Moriarty, President/CEO



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Energy consumption by fuel AEO2022 Reference case

quadrillion British thermal units



"Immediate shortfalls in fossil fuel production from Russia will need to be replaced by production elsewhere – even in a world working towards net zero emissions by 2050."

> -- World Energy Outlook 2022, International Energy Agency, page 24

Source: U.S. Energy Information Administration, Annual Energy Outlook 2022 (AEO2022) Reference case Note: Biofuels are shown separately and included in petroleum and other liquids.

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Source: US Energy Information Agency, spring 2022

Photo by Rich Loftin, AKOG 2021 Photo Contest

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AOGA Naska Oil and Gas Association

PRODUCTS MADE FROM OIL AND NATURAL GAS

Adhesive	Computer monitors	Guitar strings	Paint brushes	Solvents
Air mattresses	Certisone	Hair coloring	Paint roller	Spacesults
Ammonia	Crayons	Hair curlers	Pajamas	Sports car bodies
Antifreeze	Credit cards	Hand lotion	Panty hose	Sunglasses
Antihistamines	Cutains	Hearing aids	Parachutes	Surf boards
Antiseptics	Dashboards	Heart valves	Perlumes	Swimming pools
Artificial limbs	Denture adhesives	House paint	Permanent press	Synthetic rubber
Artiticial furt	Dentures	Hula hoops	Petroleum jelly	Telephones
Asphalt	Deodorant	Ice buckets	Pharmaceuticals	Tennis rackets
Aspirin	Detergent	Ice chests	Pillow filling	Tents
Awnings	Dice	ice cube trays	Plastic toys	Tirea
Backpacks	Dishwashing liquid	lnk	Plastics	Tool baxes
Balloons	Deg collars	Insect repellent	Plywood edhesive	Tool necks
Ballpoint pens	Drinking cups	Insecticides	Propane	Toothbrushes
Bandages	Буня	Insulation	Рагана	Toothpaste
Beach umbrelias	Electric blankets	IPad/IPhone	Putty	Transparent tape
Boats	Electrical tape	Kayaks	Refrigerants	Trash bags
Cameras	Enamel	Laptops	Retrigerator linings	Truck and automob
Candies and gum	Epoxy paint	Life jackets	Roller skate wheels	parts
Candles	Eyeglasses	Light-weight aircraft	Roofing	Tubing
Cer bellery cases	Fen belts	Lipstick	Rubber cement	TV cabinets
Car enamel	Faucet washers	Loudspeakers	Rubbing alcohol	Umbrellas
Cassettes	Fertilizers	Lubricants	Safety glasses	Unbreakable dishe:
Caulking	Fishing boots	Luggage	Shampoo	Uphoistery
CDs/computer disks	Fishing lures	Model cars	Shaving cream	Vaporizers
Cell phones	Floor was	Mops	Shoe polish	Vinyl Rooning
Clothes	Food preservatives	Motorcycle heimets	Shoes/sandals	Vitamin capsules
Clothesline	Footballs	Movie film	Shower curtains	Water pipes
Clothing	Fuel tanks	Nall polish	Skateboards	Wind turbine blades
Coffee makers	Glue	Noise insulation	Skis	Yam
Cold cream	Glycerin	Nylon rape	Scap dishes	
Comba	Golf baga	OI filters	Soft contact lenses	
Computer keyboards	Golf balls	Packaping	Solar panels	



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Source: US Energy Information Agency





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Source: US Energy Information Agency



RESOURCE POTENTIAL		
STATE LAND	FEDERAL LAND	
Cook Inlet	Offshore Arctic	
599 mbo and 19 tcf gas	27 bbo and 132 tcf gas	
Onshore North Slope	NPR-A	
<u>Conventional</u> 5 bbo and 35 tcf gas	8.8 bbo and 39.2 tcf gas	
Heavy/Viscous 24-33 bbo	ANWR	
Unconventional 2 bbo and 12 tcf gas	10 bbo and 3.5 tcf gas	
mbo - million barrels of oil bbo - billio	n barrels of oil tcf - trillion cubic feet	

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Source: USGS

Photo by Jordan Shaffer, 2021 AKOG Photo Contest 8



Cook Inlet: Alaska's Original Oil and Gas Basin





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Map Source: Department of Natural Resources, Activity Map, June 2022 Photo by Timothy Cudney, AKOG 2021 Photo Contest Prudhoe Historic photo from Alaska Digital Library Collection





"Since startup on June 20, 1977, TAPS has transported more than 18 billion barrels North Slope crude from the North Slope to

> -- Alyeska Pipeline Service Company



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Photo by Theresa Sheldon, 2021 AKOG Photo Contest Winner

Photo by Lori Burroughs, 2021 AKOG Photo Contest ¹²



Marathon Nikiski <u>Refinery</u>



- 68,000 barrel/day refinery
 Primary products include gasoline, gasoline blend stocks, jet fuel, diesel fuel, heavy fuel oils, propane and asphalt
- 300 Alaskans employed

Petro Star Valdez Refinery



- 60,000 barrel/day crude distillation unit
- 12,000 barrel/day distillate hydrotreater and associated process units (Clean Fuels Unit)
- Primary products are commercial & military spec jet fuels and ULSD (JP-5 for USCG Kodiak)

Petro Star North Pole Refinery



- 22,000 barrel/day crude distillation unit
- Primary products include commercial and military spec jet fuels, home heating oil, low-sulfur diesel, asphalt oil and turbine fuel

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Massive Natural Gas Resource





Alaska North Slope Gas Potential



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Photo by Danyel Baker, 2021 AKOG Photo Contest



ALASKA: Doing ESG Right



Environmental Governance

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Photos L to R: David Luke, 2021 AKOG Photo Contest; James Webb, 2021 AKOG Photo Contest; Josephine Roberts, 2021 AKOG Photo Contest, Judy Patrick, 2021 AKOG Photo Contest; Caroline Schultz, Conoco Phillips Alaska

Social



Driving Innovation



"UAF engineers and Hilcorp Alaska have successfully deployed an enhanced oil recovery method using a process known as polymer flooding to pull thick, viscous oil to the surface at Milne Point."

--- New Technique for Heavy Oil Recovery, Alaska Business, October 12, 2022

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Picture: CCUS Workgroup Roadmap Presentation 11.07.22

Video Source: Energy for Progress, API







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"The Role of the Oil and Gas Industry in Alaska's Economy." McDowell Group, January 2020

Photo by Gabriel King, AKOG 2021 Photo Contest



	2021 Actual	2022 Projected	2023 Projected
Average Price of Oil (\$/barrel)	\$54.14	\$91.68	\$101
Oil Revenue (State & Local)	\$2.051 Billion	\$4.51 Billion	\$5.61 Billion
Other Revenue	\$924.4 Million	\$851.8 Million	\$981.5 Million
Investment Revenue	\$3.305 Billion	\$3.080 Billion	\$3.426 Billion
Total State Revenue (subject to appropriation)	\$5.530 Billion	\$7.531 Billion	\$8.990 Billion

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Source: Alaska Department of Revenue Spring Forecast 2022, Page 10; Fall Revenue Source Book, Page 51

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Source: Alaska Permanent Fund Dividend Division

\$49,817.41

to individual Alaskans

Figures not adjusted for inflation





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Photo by Lori Burroughs, AKOG 2021 Photo Contest

Photo by Judy Patrick, AKOG 2021 Photo Contest







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Photo source: David Luke, 2021 AKOG Photo Contest 25

hank you!



Appendix

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Lagging Investment:

Estimated Capital Spending* for exploration and development Alaska North Slope vs. US and Worldwide for 2003 -2012

*North Slope figures based on tax return information; U.S. based on top 50 public companies; worldwide based on top 75 public companies Source: Econ One Research

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Tax Policy Instability:

13 changes or proposed changes in 17 years

Dates	Tax Policy Change	Increase/Decre ase	AOGA Position
Feb. 2005 – March 2006	Aggregated ELF – Administrative decision altering gross production tax	Tax Increase	Opposed
April 2006 – July 2007	Petroleum Production Tax (PPT)	Tax Increase	Opposed Final Version
July 2007 – 2013	Alaska's Clear and Equitable Share (ACES)	Tax Increase	Opposed
2010	Cook Inlet Recovery Act	Incentives for Industry	Supported
2014	SB 21	Both	Supported with Concerns
2016	HB 247	Tax Increase	Opposed
2017	HB 111	Tax Increase	Opposed
2018	Several Tax Increase Proposed but not passed	Tax Increase	Opposed
2019	Several Tax Increase Proposed but not passed	Tax Increase	Opposed
2020	Alaska's Fair Share Ballot Measure	Tax Increase	Opposed
2021	Several Tax Increase Proposed but not passed	Tax Increase	Opposed
2022	Several Tax Increase Proposed but not passed	Tax Increase	Opposed

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In sub-Saharan Africa, 620 million people – two-thirds of the population – live without electricity. Only a handful of countries have electrification rates above 50%.

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Compared with the national average, counties in central Colorado, Alaska, and and 2014, while some southern counties in states stretching from Oklahoma to along both coasts experienced larger increases in life expectancy between 1980 West Virginia saw little, if any, improvement over this same period.

1771

"On May 18, 2021, the International Energy Agency (IEA) released ... plans for the global energy sector to reach "net zero" greenhouse gas emissions by 2050 ... And today, in real-world Africa, this goal is not feasible. Nor is it advisable. While I agree with their data on many topics, the IEA's conclusion is flat-out wrong on this issue.

Africa needs oil and gas."

-- NJ Ayuk, The African Energy Chamber

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