# COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY FOR ALASKA

# YEAR-1 UPDATE

July 30th, 2018

ALASKA

NORTHERN OPPORTUNITY

Alaska's Economic Strategy

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# I: INTRODUCTION

*Northern Opportunity: Alaska's Economic Development Strategy* was embraced in its first year by government, industry partners, economic development organizations, and community partners around the state. The strategy was used to focus the work of Alaska's Division of Economic Development and was used by local governments and economic development organizations to leverage funding for regional economic development work.

Alaska's statewide comprehensive economic development plan includes 28 objectives across six different goal areas. For the first year of implementation, the Department of Commerce, Community and Economic Development (DCCED) picked 10 of these objectives to prioritize. These objectives were picked based on Strategy Committee feedback and the availability of DCCED resources. This one-year update reports on accomplishments made during the last year on the priority objectives and provides baseline metrics to measure future progress against.

The one-year update also includes a revised resiliency framework and SWOT analysis. These sections were updated to incorporate EDA feedback on the original CEDS. The resiliency framework has been expanded to include a more thorough analysis of the ways the state can bounce back from economic setbacks and limit the impacts of potential disasters. This section also includes key players who will be important in the event of an economic disaster. The SWOT analysis discusses ways that Alaska's existing economic assets can be capitalized on to promote long-term growth.

# II: RESILIENCY FRAMEWORK

Although recent decades have brought prosperity to Alaska, the state faces a consistent set of economic challenges and growth barriers that have changed little as the years progress. Although oil wealth has created widespread benefits, employment, and public revenues, some of the state's economic foundations remain weak.

Understanding which economic areas are vulnerable to disruption, and identifying early warning signs, are vital to getting ahead of any potential cracks in Alaska's economic foundation. With an eye to ensuring such cracks don't become true structural flaws, the Division of Economic Development (DED) is modifying the resiliency framework and adding to specific CEDS goals to better prepare for ongoing challenges to Alaska's ongoing economic development.

## Persistent Economic Challenges

**Housing**: In both urban and rural Alaska, housing is expensive and supply is limited. Rural areas in particular face issues with overcrowding and high cost burdens. The cost of construction causes a market failure in which developers often cannot earn a profit by building new homes, worsening supply constraints. Employers often cite a lack of affordable housing as a barrier to attracting skilled workers.

**Energy**: Alaska has the highest per capita energy expenditures of any state, and is second only to Hawaii in the cost of electricity.[1] Anchorage businesses cite it as the third most important growth barrier.[2] Power costs in rural communities can be three to five times higher than in urban communities, and depend heavily on shipments of expensive heating oil.

**Health care**: According to the national Cost of Living Index, Juneau, Fairbanks, Anchorage, and Kodiak have the most expensive health coverage out of 294 participating urban areas in the US.[3] Over two-thirds of Anchorage businesses say the cost of health care is a major growth barrier[4]. Other research shows that Alaska's rate of growth in health care costs exceeds the national rate.[5]

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[1] United States, Energy Information Administration. (2018, January 25). *State Electricity Profiles.* Retrieved from https://www.eia.gov/electricity/state/

[2] Anchorage Economic Development Corporation. *2018 Annual Business Confidence Index Report.* Retrieved from http://aedcweb.com/wp-content/uploads/2018/01/2018-BCI.pdf

[3] The Council for Community and Economic Research (C2ER). (2018). *Cost of Living Index*.

[4] Anchorage Economic Development Corporation. *2018 Annual Business Confidence Index Report.* Retrieved from http://aedcweb.com/wp-content/uploads/2018/01/2018-BCI.pdf

[5] United States, Department of Labor, Bureau of Labor Statistics. *2017 Consumer Price Index*. Retrieved From https://www.bls.gov/cpi/

**Rural unemployment**. Even in times of relative prosperity, like the years immediately prior to the current recession, rural parts of the state have suffered from a scarcity of jobs. As of April 2018, 14 of the state's 29 boroughs and census areas had unemployment rates higher than 10%, compared to 3.7% for the United States as a whole.[6]

**Workforce shortages**: Even with rising unemployment rates, employers still report difficulty in locating workers at all skill levels. As an example, Anchorage businesses listed workforce cost and availability issues as four of the ten most significant barriers to growth in 2018.[7]

**Reliance on one major industry**: The oil and gas industry has been the major driver of economic growth in Alaska for more than four decades, generating widespread gains for Alaskans. With one-third of Alaska jobs tied to the sector, however, the state is vulnerable to changes to this industry.

**Geography and distance**: Alaska's remoteness from the rest of the United States increases the cost of finished goods and raw materials in-state, and also raises the cost of exporting products from the state. The state's vast size, limited infrastructure, extreme weather, and varied topography also present challenges to economic development.

**Development obstacles**: Natural resource development projects require lengthy and uncertain permitting and regulatory processes sometimes measured in decades. The cost of doing business in the state, complex logistics, and federal land ownership present formidable barriers to mining, oil and gas, and timber development.

**Infrastructure limitations**: Of Alaska's 29 boroughs and census areas, 17 lack a highway connection to the rest of the continent. Broadband access is severely limited (or nonexistent) in many rural areas, posing an obstacle for participation in a cash economy. There are few ports and harbors in Western and Arctic Alaska in particular, which limits the flow of goods and increases costs.

[6] Alaska Department of Labor and Workforce Development. (2018, April). *Not Seasonally Adjusted Unemployment Rates*. Retrieved from http://live.laborstats.alaska.gov/labforce/

[7] Anchorage Economic Development Corporation. *2018 Annual Business Confidence Index Report.* Retrieved from http://aedcweb.com/wp-content/uploads/2018/01/2018-BCI.pdf

Figure 1 Steady-State Resilience Initiatives in the CEDS: This table lays out potential challenges to Alaska's economy and explains how the CEDS addresses each of them.

| Challenge | How CEDS Addresses |
|---|---|
| Housing Costs and Availability | • Improve community development foundations that influence economic development (Quality of Life Goal)<br>• Improve quality of life metrics in Rural Alaska (Quality of Life Goal)<br>• Add housing objective to Quality of Life Goal |
| Energy Costs | • Reduce the energy cost burden on Alaska businesses and households (Economic Development Infrastructure Goal) |
| Health Care Costs | • Improve community development foundations that influence economic development (Quality of Life Goal)<br>• Add health care objective to Quality of Life Goal |
| Rural Unemployment | • Increase tools and resources available to rural businesses (Business Development Goal) |
| Workforce Shortages | • Create stronger alignment between workforce development and economic development programs and services (Business Development Goal) |
| Industry Reliance | • Several objectives address increasing diversification to reduce economic dependency on commodities. State fiscal policies can reduce State reliance on commodity tax as the single source of fiscal stability. |
| Geography and Distance | • Encourage import substitution with the promotion of Alaska made products (Business Development Goal) |
| Resource Development Obstacles | • Strengthen existing resource extraction industries, including the oil and gas and |

| | |
|---|---|
| | the mining sectors (Business Development Goal) |
| Infrastructure Limitations | • Improve access to broadband, statewide (Economic Development Infrastructure Goal)<br>• Encourage improvement and development of intermodal hubs and ports (Economic Development Infrastructure Goal) |

## Disruptions and Early Warning Tools

**Commodity price swings:** Sharp variations in the price of commodities have periodically created economic pain for Alaskans. A collapse in the price of oil caused the current recession as well a severe one in the mid-1980s. Fluctuations in the price of zinc, gold, coal, and other minerals can also cause disruption, particularly at the local level.

**Fisheries disasters**: Weak salmon runs can harm commercial fishing communities and subsistence uses. Reductions in the total allowable catch of Pacific cod in 2017 and 2018 is harming commercial fisheries and local governments that derive revenue from them. Similar reductions in catch or closures of salmon fisheries further exacerbate losses in the fishing industry. These types of disasters are difficult to predict or mitigate.

**Subsistence threats**: In addition to fluctuations in seafood stocks, game populations are also subject to declines due to natural or anthropogenic causes. Access to fish and game is central to the maintenance of subsistence economies in rural Alaska.

**Climate change impacts**: These take a variety of forms, not all of which are well understood. Coastal erosion, ocean acidification, floods, sea ice changes, and other disruptive phenomenon have been tied to climate change. Many of these occurrences have important implications for subsistence and cash economies.

**Natural disasters**: Alaska's recent history includes earthquakes, tsunamis, volcanic eruptions, floods, and severe storms. All of these can have devastating impacts to local, regional, or statewide economies.

**Environmental contamination**: The Exxon Valdez oil spill is one example, as are the contaminated former military sites in places like Port Heiden, St. Lawrence Island, and many others. These can cause public health problems and disruption to industries like commercial fisheries.

Figure 2 Resiliency Disruptions and Early Warning Tools: This table shows potential shocks – including early warning signs -- to the Alaska economy, and how objectives in the CEDS can mitigate these economic rough spots.

| Disruption | How CEDS Addresses | Early Warning Signals |
|---|---|---|
| Commodity price swings | • Several objectives address diversification to reduce dependency on commodities | • Sudden declines in the prices of crude oil, natural gas, minerals, seafood, and other commodities |
| Fisheries disasters | • Several objectives address diversification to reduce dependency on any single industry or resource. | • Price collapses, buyer constraints, declared fisheries disasters, reductions to total allowable catch. |
| Subsistence threats | • Improve quality of life metrics in Rural Alaska<br>• Add subsistence objective | • Reports from communities and Alaska Department of Fish and Game, disaster declarations |
| Climate change impacts | • Add objective relating to Climate Change Action Policy | • Disaster declarations, media coverage, community reports |
| Natural disasters | • Add economic response to disasters objective | • Disaster declarations, media coverage, community reports |
| Environmental Contamination | • Add economic response to disasters objective | • Media coverage, community reports |

## Add to Goals and Objectives

**Economic Development Capacity Building Goal:** Work with municipal and tribal governments, Division of Community and Regional Affairs, Department of Military and Veteran's Affairs, Small Business Administration, ARDORs, Alaska Native Organizations, economic development organizations, and others to create an e-communication network for economic disasters. This network will provide affected communities with support in the form of advice on responses, funding, and other solutions.

**Quality of Life Goal:** Work with communities, housing authorities, and other nonprofit stakeholders to find new solutions to increase the supply of affordable, quality housing.

**Quality of Life Goal:** Work with Division of Insurance, Alaska Healthcare Transformation Project, Alaska Health Workforce Coalition and other health care organizations in the public and private sectors to identify solutions to the cost of health care.

**Business Development**: Identify and promote opportunities for Alaska businesses in connection with the Alaska Liquid Natural Gas (LNG) Project.

**Business Development:** Grow and strengthen partnerships between economic development, the military, and defense contractors.

## Update Goals and Objectives

**Entrepreneurship and Innovation Goal:** Connect rural Alaska and Alaska Native Communities to the entrepreneurial resources of the urban centers.

**Business Development Goal:** Increase tools and resources available to rural and Alaska Native businesses.

**Economic Development Infrastructure Goal:** Increase access to statewide broadband.
Objective Partners: Federal Communications Commission, Alaska Native Organizations, Alaska Telephone Association, Alaska Broadband Task Force, private sector telecommunication companies, ARDORs.

# III: STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS TO THE ALASKA ECONOMY

SWOT analysis—which stands for strengths, weaknesses, opportunities, and threats—can be used to critically examine the position of a state's economy, to assist in the formation of goals and strategies. Strengths and weaknesses are internal to the state, while opportunities and threats are external elements that exert influence. This SWOT takes into account background research, community and industry forum input, strategy committee discussion, and other information to critically assess potential future states of Alaska's economy.

Figure 3 SWOT Summary: This table details Alaska's economic strengths, weaknesses, opportunities and threats.

| | **Beneficial** | **Harmful** |
|---|---|---|
| **Internal** | **Strengths**<br>• Established industry sectors: oil and gas, federal, mining, seafood, and tourism<br>• Emerging industry sectors: maritime, renewable energy and microgrids, transportation, outdoor recreation, agriculture, and health care<br>• Natural resource endowment<br>• Entrepreneurship ecosystem<br>• Cultural assets<br>• Intellectual assets<br>• Natural environment<br>• Infrastructure (positive aspects) | **Weaknesses**<br>• Workforce shortages<br>• Lack of broadband availability<br>• Distressed regions<br>• Distance from markets<br>• High cost of living<br>• High energy costs<br>• Housing costs and shortages<br>• Infrastructure (negative aspects)<br>• Reduced capacity for economic development<br>• State fiscal reliance on single economic sector |
| **External** | **Opportunities**<br>• Increased global interest in the Arctic<br>• Military importance of Alaska<br>• Natural gas pipeline<br>• Global importance of Alaska-specific knowledge: energy, unmanned aircraft, Arctic science, remote sensing<br>• New resource development prospects<br>• Opportunities for circumpolar collaboration | **Threats**<br>• Changing commodity markets, especially crude oil<br>• Federal land use restrictions<br>• Climate change impacts |

## Strengths: Assets to support economic development

**Established industry sectors clusters:** Oil and gas, government spending, mining, seafood, and tourism, have fueled economic growth since statehood or even prior. Although subject to economic whims they continue to create jobs for most Alaskans.

**Emerging industry sectors:** Outside of the state's mature industries, economic developers have identified a number of other sectors with high growth potential in Alaska. These include:

- Maritime industrial sector
- Renewable energy
- Aviation, transportation, and logisitics
- Outdoor recreation
- Agriculture
- Health Care

**Natural resource endowment:** Alaska has abundant natural resources, including those that have not been developed. These include:

- Crude oil found primarly on the North Slope and Cook Inlet. Prudhoe Bay was historically one of North America's largest fields.
- Natural gas, also found in the same two regions but undeveloped as a resource on the North Slope.
- Minerals, including gold, zinc, lead, silver, coal, copper, graphite, and rare earth elements throughout the state.
- Seafood, consisting largely of salmon, groundfish, crab. The most active fisheries are in Southeast, Gulf of Alaska, Bristol Bay, and the Bering Sea. Alaska harvests more seafood by volume than all other states combined.
- Timber, which once supported a sizable industry in Southeast but is now scaled down. Southeast has the largest resource but exploitable timber is also found in other regions.

**Entrepreneurship ecosystem:** Alaska hosts a number of programs, events, and support services for early stage businesses. A startup accelerator, angel investment funds, and engaged university system are a few examples.

**Cultural assets:** A number of institutions contribute to the cultural vibrancy of Alaska. The Alaska Native Heritage Center and a number of regional museums and cultural centers showcase and celebrate Alaska Native cultures. Museums in urban centers and rural hubs in Alaska attract visitors and preserve local history and culture. Communities throughout Alaska are bastions of cultural resouces. Beyond the intrinsic value of culture, these cultural resources connect people, give insight to threats and opportunties and contribute to quality of life.

**Intellectual assets:** The University of Alaska system, with its major campuses in Anchorage, Fairbanks, and Juneau and a number of satellites throughout the state, serves most of the higher education and research needs. UAF is a global leader in Arctic research, among other areas. Alaska is also home to a wealth of traditional knowledge known to Native Alaskans for thousands of years.

**Natural environment:** Alaska attracts visitors and residents alike for its unique natural spaces, recreational opportunities, and abundance of fish and wildlife. The Alaska lifestyle embraces outdoor recreation as well as hunting and fishing for personal or subsistence use.

**Infrastructure:** Although many communities are not connected by road, the state has over 700 runways, one major railroad, and developed port infrastructure in several regions. Anchorage International Airport is one of the world's busiest cargo hubs.[8]

## Weaknesses: Factors internal to the state which may harm economic development

**Workforce:** Numerous surveys of employers report shortages of skilled workers at nearly all skill levels, and affecting nearly all industries. As in other states, high school drop out rates and drug use worsen the problem. Vocational-technical and higher education providers say they face capacity constraints. Employers often recruit workers from outside the state.

**Broadband:** In addition to lower speeds and higher costs, rural households in Alaska generally have less access to broadband internet.[9] Efforts underway are expanding access, but a gap remains, inhibiting broader economic participation.

**Distressed regions:** A wide gulf exists between the economies of rural and urban Alaska. As an example, eight rural boroughs and census areas led the state in unemployment in May of 2018, with rates exceeding 10%. Recent research by the Center for Economic Development also shows low rates of business ownership in most rural areas, and less job creation as a result.[10]

**Distance:** Alaska's remoteness from US population centers raises the cost of goods and inhibits many forms of manufacturing and export-oriented commerce outside of natural resources.

[8] Hughes, Z. (2018, April 13). Ted Stevens International Airport ranked fifth busiest hub for air cargo. *Alaska Public Media*. Retrieved from https://www.alaskapublic.org/2018/04/13/ted-stevens-international-airport-ranked-fifth-busiest-hub-for-air-cargo/

[9] Federal Communications Commission. (2018, April). *Internet Access Services Report.* Retrieved from https://www.fcc.gov/internet-access-services-reports

[10] University of Alaska Center for Economic Development. (2018, May). *Alaska: State of Entrepreneurship.*

**Cost of living:** Alaska has the highest heath care costs in the US, and higher than average costs for housing, food, energy, and other expenses.[11] This raises the cost of wages for employers and makes it difficult to attract a qualified and available workforce.

**Energy:** Alaska has the highest per capita energy expenditures of any state, and the cost of power is nearly 70% above the national average.[12] Costs are especially high in rural communities relying on diesel generators, where electricity can cost $1.00 per kWh against a statewide average of $.21 per kWh. High energy costs inhibit many types of commercial and industrial businesses that consume large amounts of power.

**Housing:** Alaska communities rank in the top 10% for housing costs among US cities.[13] With a median home price of roughly $370,000, Anchorage, Alaska's largest community, is especially expensive.[14] In Rural Alaska, a large share of homes are overcrowded and cost-burdened.[15]

**Infrastructure:** A majority of communities are not connected to the highway system, and the state lacks electrical interties and natural gas distribution in many regions. There is no deep water port in the Arctic portions of the state. Developers of natural resource projects often must finance their own road, port, and energy infrastructure, adding considerable costs. Legacy infrastructure, such as the Port of Alaska, require new capital investment to remain serviceable.

**Reduced capacity for economic development:** The Alaska Regional Development Organization (ARDOR) program no longer has state funding, and tourism marketing funds were also cut. Several ARDORs have cut staff and reduced efforts toward economic development. These ARDORS were located in rural areas such as the Copper Valley that are most in need of economic development. Cuts to tourism marketing funds potentially result in longterm reductions to domestic and international visitors to the state.

## Opportunities: External trends with potentially positive impacts

**The Arctic:** As sea ice retreats, nations around the world show increased interest in the Arctic as a source of natural resources and as a highway for the movement of goods. The potential for growing commerce opens new markets for Alaska businesses and the need for federal investments in defense and homeland security infrastructure.

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[11] The Council for Community and Economic Research (C2ER). (2018). *Cost of Living Index*.
[12] United States, Energy Information Administration. (2018, January 25). *State Electricity Profiles.* Retrieved from https://www.eia.gov/electricity/state/
[13] The Council for Community and Economic Research (C2ER). (2018). *Cost of Living Index*.
[14] Alaska Multiple Listing Service, 2018.
[15] Alaska Housing Finance Corporation. (2018). *2018 Housing Assessment.* Retrieved from https://www.ahfc.us/efficiency/research-information-center/alaska-housing-assessment/2018-housing-assessment/

**Military:** The United States Army and Air Force in particular are major investors in Alaska. In 2015, the military spent $3.3 billion in Alaska, the third highest total for any state on a per capita basis.[16] Recent large-scale defense projects in Alaska will mean additional infusions of capital into the state. The Long Range Discrimination Radar (LRDR) and arrival of F-35 fighter aircraft at Eielson Air Force Base are two recent examples. The latter is expected to result in over $1 billion in construction spending between 2018 and 2021.[17]

**Natural Gas Pipeline:** Building a natural gas pipeline has been a longstanding priority for state government in Alaska. In 2017 the effort reached a milestone with the execution of an agreement with the government of China for investment in the $43 billion project.[18]

**New resource development prospects:** Oil and gas exploration continues in Alaska with several likely prospects on the North Slope and Cook Inlet. Sizable mineral prospects also attract attention and investment.

**Tourism:** Alaska currently attracts around 2 million visitors per year. Opportunities exisit to greatly expand international visitation particularly in the Chinese market. Outdoor recreation is another growing sub-sector of the visitor industry that would increase the number and economic impact of visitors.

## Threats: External forces with potentially negative impacts

**Commodity prices:** As the recession that began in 2015 illustrated, Alaska's economy rests on the whims of global markets that determine the prices of commodities like crude oil. External forces Alaskans cannot control also determine the prices of seafood, minerals, and timber, which can have major impacts on regional economies.

**Federal land use restrictions:** The federal government owns a majority of the land in the state, restricting the development of natural resources and other commercial uses. State institutions have limited ability to influence federal land policy.

**Climate change:** The economic costs of climate change are diffuse and difficult to measure. However, its impacts potentially include damage to fisheries, coastal erosion, severe storms, and forest fires. The Alaska Climate Change Policy is a recent effort by Governor Walker to understand and mitigate some of these impacts.

[16] Alaska Department of Labor and Workforce Development. (2017, August). *Alaska Economic Trends*, 9.
[17] Fairbanks North Star Borough. (2018). *Eielson Regional Growth Plan.* Retrieved from http://www.eafbregionalgrowth.com/wp-content/uploads/2018/06/FNSB-EAFB-Draft-RGP_Full%20Draft_6-25-18.pdf
[18] Alaska Gasline Development Corporation, alaska-lng.com

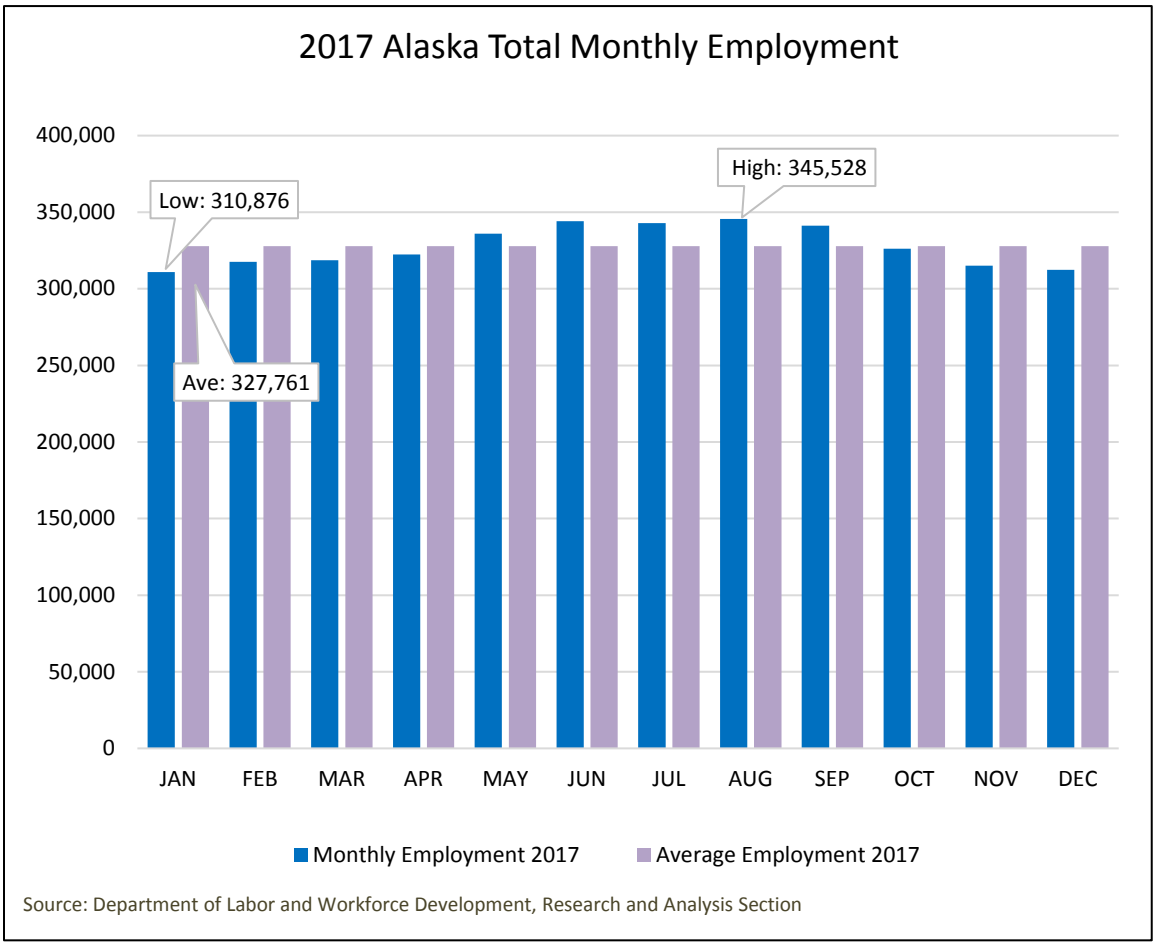
# IV: REPORT ON OBJECTIVES

Alaska's Economic Strategy is a roadmap for Alaska. The project as a broad reach and outlines economic objectives from 2017-2022. The below section outlines progress made on the ten objectives chosen for Phase 1 of the implementation of Northern Opportunity, Alaska's Economic Strategy.

## Workforce Development Objective: Create stronger alignment between workforce development and economic development programs and services.

Total employment in 2017, the most recent year for which data is available, averaged 327,760. This is a decline from 2016 that speaks to Alaska's ongoing recession, the longest in the state's history. In the midst of this recession, workforce development efforts have continued with considerable force. A selection of these efforts is presented below.

Figure 4 Alaska Total Monthly Employment: Monthly and average annual employment numbers for Alaska in 2017.




Source: Department of Labor and Workforce Development, Research and Analysis Section

Registered Apprenticeship in Alaska has flourished due to the combined partnership between the Alaska Department of Labor and Workforce Development (DOLWD), United States Department of Labor (USDOL) Office of Apprenticeship, business & industry stakeholders, intermediaries, program sponsors, and training providers. Utilizing the framework and standards of Registered Apprenticeship, department staff (located in five regional hub comprehensive One-Stop Job Centers) have received training supported by the USDOL, Office of Apprenticeship in Alaska. These staff work directly with Individual Non-Joint and Multi-Employer program sponsors to establish, maintain, and grow registered apprenticeship utilization. The Registered Apprenticeship program provides for a high degree of fidelity within the individual Standards of Apprenticeship, accountability to ensure that qualifications are earned and met, and portability that allows Alaskans to apply their occupational trade effectively across differing employers and industries as workforce demands change.

Recent efforts to increase the utilization of Registered Apprenticeship have been supported by USDOL through various competitive grants. Alaska has made strides in aviation, maritime, construction, and most notably healthcare which has demonstrated the highest recent year-over year job growth.

Continued support from USDOL for Registered Apprenticeship efforts will allow continued expansion and creation of meaningful pathways for Alaskans to fill these in-demand occupations. Partnerships with other workforce stakeholders will continue to support apprenticeship expansion and increase Alaska hire. For example, the University of Alaska System has made progress towards increasing expanding college credit for registered apprenticeships. This step by the state's largest educational institution, along with their recent announcement to discount Career and Technical Education (CTE) tuition rates by 25 percent, supports the larger effort to increase workforce development within the state.

In 2018, the Alaska Workforce Investment Board (AWIB) revised the State's Workforce Innovation and Opportunity Act (WIOA). The AWIB has also undertaken a revamping of the State's Career and Technical Education program, expanding and bringing the plan up-to-date. The Alaska Department of Labor and Workforce Development has also undertaken development of a Gasline Workforce Development Plan in conjunction with the AWIB. All of these workforce development plans are created with significant participation from industry. As such they incorporate industry level economic development goals and necessary actions needed to meet those goals.

In 2018, DOLWD and the Alaska Workforce Investment Board (AWIB) revised the State's Combined Plan required by the federal WIOA. The plan describes Alaska's strategic vision and goals for developing its workforce and meeting employer needs in order to support economic growth and economic self-sufficiency.

The AWIB, in coordination with DOLWD, DEED, and UA also has begun a revisit of the State's Career and Technical Plan, recognizing the importance of CTE in ensuring a broad spectrum of post-secondary opportunities that prepare Alaskans to meet industry employment needs. .

DOLWD also undertook the development of the Alaska LNG Project Gasline Workforce Plan, which was adopted by the AWIB in May 2018. The plan identifies the workforce needed to build and operate the gasline, one of the largest construction projects on the continent.

The 2010 Healthcare Workforce Plan is currently being updated by DOLWD to meet the needs of Alaska's continuously growing industry. The Alaska Health Workforce Coalition (AHWC) a public-private partnership created to address health workforce issues completed the Alaska Health Workforce Plan in 2010 and it first Action Agenda 2012-2015 in 2011. During FY18, the second Action Agenda 2018-2021 was drafted and adopted. In the updated Action Agenda, health care stakeholders will find both new and continuing occupational priorities as well as systems change and capacity building initiatives. AHWC recognizes that unprecedented change is occurring across Alaska's health field and it is the intent of this plan to be a bridge and provide guidance during this time.

In response to statewide comprehensive economic development goals and objectives, DOLWD has been involved in working groups related to the expansion of the Ocean Economy. Their presence at these meetings helps facilitate the maximization of employment in maritime industry including the seafood industry. The department will be aware of industry workforce needs related to value-added activities, commercial fishing and boat and ship building in time to respond with trainings. Bridging this gap between an emerging industry cluster and the DOLWD benefits the industry by raising awareness of existing workforce development plans and the industry players involved in their creation and execution.

Beyond the Gasline and Ocean Economy, workforce development crosses all industries. There is a significant effort to develop the workforce involved in the energy industry. The mining, health care, transportation, and construction industries also currently have workforce development plans registered with the AWIB. The still fledgling startup community is actively engaged in developing an entrepreneurial workforce through sprints, design competitions, pitch sessions, new software platforms and more.

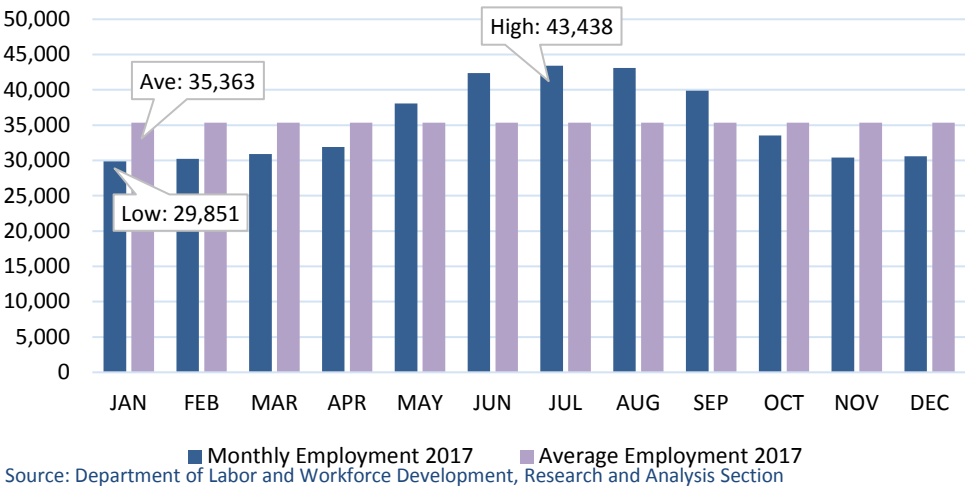
All of these workforce development plans are created with significant participation from industry. As such they incorporate industry level economic development goals and necessary actions needed to meet those goals.

Alaska Vocational Technical Center (AVTEC), a competency based postsecondary training institution housed in DOLWD, and other regional training centers across Alaska work closely with private industries to understand and implement workforce training needs. AVTEC provides related technical instruction for apprenticeships in the construction industry and health care fields. The advisory boards for these institutions are comprised of employers from key industries in the regions they serve – helping to ensure that training aligns with workplace needs and employment opportunities.

## Visitor Industry Objective: Grow the impact of Alaska's Visitor Industry in existing regions and market segments, and increase the impact of the industry to Alaska communities.

In 2017, Alaska had over 35,000 jobs in the Leisure and Hospitality industry. While this industry serves locals and visitors alike, it is a good proxy for employment in the Visitor Industry. The Visitor Industry is extremely seasonal, reaching a high of 43,400 jobs in July and a low of 29,900 in January.

Figure 5 Alaska Hospitality Employment: Both monthly and annual average employment numbers in the Alaska hospitality industry for 2017.



Source: Department of Labor and Workforce Development, Research and Analysis Section

In FY18, the Alaska Travel Industry Association (ATIA) represented Alaska at several industry wide trade shows. They collaborated with the DED by bringing Made in Alaska Directories to the Seatrade event. The goal of bringing the directories to the event was to increase import substitution in the Visitor Industry by encouraging cruise companies to purchase Made in Alaska products for their Alaskan tours. This combined effort with the Visitor industry to reduce imports serves to grow the impact of the visitor industry to Alaskan manufacturers.

Also in FY18, ATIA reintroduced the Alaska vacation planner in printed form made possible by an increase in grant funding. ATIA hosted their annual convention and trade show for participants and advocates of the Alaska tourism industry. This event will be held again in FY19.

ATIA will be updating their website in FY19 to bring the website up to date highlight and incorporate more of Alaska's Indigenous cultures.

The Fairbanks Convention and Visitor's Bureau has been successful in increasing their off-season/winter visitation. This has resulted in increased hotel/motel tax collections since 2014.

In 2017, the Fairbanks North Star Borough collected over $5.3 million in hotel/motel tax. This growth in the winter visitor sector generates a greater impact per visitor than summer visitors. In the summer, every dollar spent by a visitor on lodging results in an additional $1.77 in other expenditures. In the winter, every dollar spent by a visitor on lodging results in an additional $2.74 in other expenditures.

## Extraction Industries Objective: Strengthen existing resource extraction industries, including the Oil and Gas and the Mining Sectors.

In FY18, significant progress was taken by the federal government toward opening Area 1002 of the Arctic National Wildlife Refuge to oil and gas drilling. The 60 day comment period ended in June, 2018. Dates for public meetings have not been decided but will happen in Anchorage, Fairbanks, Arctic Village, Utqiaġvik and Kaktovik. According to the Alaska Oil and Gas Association, the Arctic Coastal Plain could hold as much as 10 billion barrels of oil.

The Oil and Gas industry has lost jobs in 2017. However, it continues to be a bedrock industry for Alaska. Updated oil and gas resource potential on State of Alaska land includes 599 million barrels of oil (mbo) and 19 trillion cubic feet (tcf) of gas in Cook Inlet. On North Slope State of Alaska lands, oil and gas reserves are estimated to be 5 billion barrels of oil (bbo) and 35 tcf gas of conventional reserves, 24-33 bbo of heavy/viscous oil and 2 bbo and 12 tcf gas of unconventional reserves.

On federal lands in Alaska resource potential is estimated to be 27 bbo and 132 tcf gas offshore in the Arctic, 8.8 bbo and 39.2 tcf gas in the NPR-A, and 10 bbo and 3.5 tcf gas in the Arctic National Wildlife Refuge.[19]

Jobs related to mining and mining support services outside of oil and gas averaged 3,100 in 2017. The mining industry was strengthened in 2018 by the assignment of several promising mining districts to Opportunity Zones. These zones allow tax breaks and deferral for investments made in projects in the zones.

The DED staffs the Minerals Commission. It is through this staffing that assistance is provided in the preparation of the Report of the Alaska Minerals Commission. This report outlines industry concerns regarding regulations, taxes, fiscal policy and more. The report supports several of the goals of the resource extraction economic objective; it promotes a stable tax environment, encourages responsible exploration and production, and advocates for the reduction of onerous permitting requirements.

The DCCED, the Alaska Department of Natural Resources, and the Alaska Industrial Development and Export Authority, along with mining industry partners represented Alaska's mineral potential and current mines at two international mining conferences in 2018; the Association or Mineral Exploration's Roundup conference and the Cambridge House Resource

[19] Alaska Oil and Gas Association, 2018

Investment Conference. Hosting a booth at these conferences allows the DED and partners to actively market Alaska's resources to investors and mineral extraction companies to generate investment, jobs and wealth for Alaska.

The State has significant natural gas resources that in FY18 were aggressively marketed to the Chinese market. Non-binding agreements were signed by the Chinese government for Alaska's oil and gas. A non-binding MOU was also signed between the Alaska Gasline Development Corporation and the Korean company KOGAS.

At the end of FY 18, DED hosted a booth at the Select USA Conference to marketing Alaska's natural resources, among other industries, to foreign investment companies.

## Ocean Objective: Maximize employment in Alaska's maritime industries, including the seafood industry.

The Ocean Economy incorporates two economic development objectives; maximizing employment in Alaska's maritime industries and maximizing Alaskan employment and opportunities in the seafood industry.

Through its role in implementation of the statewide CEDS, the Ocean Cluster Initiative, housed in the Bering Sea Fishermen's Association, was awarded an EDA grant that will help them pursue increased innovation, entrepreneurship, employment in and sustainability of the Ocean Economy. The Ocean Cluster Initiative brings in several CEDS objectives including entrepreneurship, maximizing opportunities in the seafood industry, increasing the ties between workforce development and economic development, the increasing the visitor industry and increasing opportunities in the maritime sector. The Ocean Cluster Initiative brings together participating members of the Ocean Economy on a weekly basis for an informational web-based meeting. Long term goals include creating a shared space for all of the industries that touch Alaska's ocean to facilitate cooperation and cross pollination.

A key growth area for the Ocean Cluster Initiative is broadening participation in rural communities. In April 2018, staff from the Bering Sea Fishermen's Association and the Center for Economic Development conducted "Bluestorm," a 2-day community problem mapping session in Bethel. The session was themed around opportunities in the Ocean Economy and the use of entrepreneurial frameworks to solve community problems.

In FY18, DED made 151 loans totaling $13.9 million to resident commercial fishermen. The loans resulted in 751 jobs being created or saved. DED also made 8 loans totaling $10.2 million to salmon hatcheries in Alaska. In calendar year 2017 commercial fishermen benefitted from the hatcheries by catching $162 million worth of hatchery produced salmon.

The gross ex-vessel value for all fisheries in Alaska (from abalone to salmon) was over $30.6 billion in 2017 according to the Alaska Commercial Fisheries Entry Commission (CFEC). The Alaska Tax Division collects information on the value of processed fish in the state. The largest

category is frozen headed and gutted salmon. For all species in 2017, processors reported a total value of just over $774.9 million. Much of that value stays in the state in the hands of Alaska processors and harvesters. The CFEC reports that of all permits for all fisheries in 2017, 785,205 were held by Alaska residents and just 190,647 were held by non-residents.

## Import Substitution Objective: Encourage import substitution with the promotion of Alaska made products.

The Made in Alaska program promotes products made, manufactured, or handcrafted in the state and plays a significant role in the State of Alaska's economic strategy to encourage import substitution through the promotion of Alaska made products.

- Currently 1,002 Made in Alaska businesses hold 1,147 permits.
- The Made in Alaska program has generated $36,754 in receipts for permit and label sales compared to $31,480 generated in FY17.
- DED issued 155 more new permits in FY18 compared to 150 in FY17.
- DED renewed 923 permits to date in FY18 compared to 696 permits renewed during FY17.
- Permit holders represent 83 communities throughout Alaska.

During FY2018, DED staff worked with Made in Alaska businesses to develop product directories for Bath, Body, and Spa products and Food and Beverage products to increase services to permit holders and develop new ways to connect buyers and Made in Alaska sellers. DED collaborated with the Alaska Travel Industry Association to provide the Bath, Body, and Spa directory at the Seatrade International Cruise Ship Tradeshow.

Increased Made in Alaska permit activity and program revenue is expected to have resulted in part from increased outreach to existing and prospective Made in Alaska permit holders during FY2018. Outreach activities have included highlighting Made in Alaska businesses on social media and organizing Made in Alaska meet ups during Economic Development Week in May. The meet ups were social gatherings for existing and prospective Made in Alaska businesses where DED staff answered questions about the program, assisted with new applications, and gathered feedback to improve the program.

These activities increase import substitution through the promotion of in-state as an alternative to imported products. Import substitution is also increased by strengthening relationships between manufacturers and buyers outside of Alaska. By increasing out of state purchases, the market increases for manufacturers allowing them to scale up and take advantage of economies of scale, thus reducing the cost of Alaskan goods for Alaskans, reducing the cost incentive for the purchase of imports.

DED is working with the DCCED information technology staff to develop a new online permitting system that will that will streamline the permit application process, reduce administrative costs, provide record and contact management capabilities, and reporting tools

not currently available. The online system will improve services available to businesses and the public via the internet and is expected to increase marketing capabilities as well. The online system will also facilitate consumer directed product searches, making it easier for Alaskans to find and purchase products made in Alaska.

The Made in Alaska program has been working with the Small Business Development Center, Alaska Grown, Alaska Seafood Marketing Institute and Silver Hand programs to find ways to partner on import substitution goals. The group is exploring joint online platforms focused on retail and wholesale consumer needs as well as a potential shared physical space. These collaboration efforts will continue with bi-weekly meetings in FY19.

## Entrepreneurship Objective: Connect rural Alaska to the state's entrepreneurial resources and increase tools and resources available to rural businesses.

The Rural Alaska Entrepreneurship objective incorporates two economic development objectives; connect rural Alaska to the state's entrepreneurial resources and increase tools and resources available to rural businesses.

Acknowledging the importance of increasing entrepreneurial resources to rural areas of the state, it is recognized that this requires a strong and connected statewide entrepreneurial ecosystem. This objective is modified to encompass the entire state, knowing that a rising tide lifts all boats, but also emphasizing in the action items that a conscious effort will need to be carried out in the connection of rural areas of the state to urban centers, which may have more events, resources, startup companies, and people focused on entrepreneurship.

DED and the University of Alaska Center for Economic Development (UA CED) collaborated on a successful EDA grant proposal, securing $120,000 to deliver entrepreneur development trainings in five rural regions of the state.

DED made four loans totaling $754,000 to Alaskan small businesses. This investment created or saved 12 jobs and leveraged $1.95 million in private dollars. The loans were made to a boat yard, plumbing and heating business, gift shop for tourism, and a charter fishing and sightseeing business.

UA CED is also leading other efforts to increase access to tools and resources for rural businesses. The Alaska Startups website (alaskastartups.com) is an information gateway for entrepreneurs throughout the state. It contains information of interest to rural entrepreneurs including business service providers and access to capital. The Ideator platform is a portal to connect entrepreneurs to mentors to further the potential for collaboration. Both of these efforts launched in FY18.

In 2018, outreach and engagement with Alaska Native Organizations and Tribes will be increased through participation in rural Alaska entrepreneurship programs carried out by the Ocean Cluster and UAA CED and participation in statewide Alaska Native Organization conferences.

## Microfinance Objective: Expand use, availability, and knowledge of microfinance and crowdfunding.

To promote Alaska's investment crowdfunding law, DED created a Frequently Asked Questions document, prospectus template, and one page overview document. These documents are located on a new webpage on DED website. DED staff presented on the new law at the following venues:

- Kenai Peninsula Economic Development District (KPEDD) Industry Outlook Forum, January 2018
- 1 Million Cups Anchorage, January 2018
- Juneau Innovation Summit, February 2018
- Ocean Cluster Webinar, May 2018
- IRS Small Business Webinar, May 2018

DED established a working partnership with the Division of Banking & Securities to promote the investment crowdfunding law, collaborate on public speaking events, and to problem-solve on what barriers existed to increasing knowledge and use of the law in Alaska.

DED partnered with Alaska Pacific University (APU) to bring Amy Pearl, Founder of Hatch Innovation & Hatch Oregon based in Portland, Oregon to Alaska on June 25-29, 2018 for educational events and outreach around investment crowdfunding. DED and Division of Banking & Securities staff facilitated events for Ms. Pearl to meet with Small Business Development Center advisors, economic developers, entrepreneurs, investors, and attorneys in Juneau, Anchorage, and Fairbanks. A one-credit continuing legal education training was held on June 25 with the Alaska Bar Association's Business Section to educate attorneys about investment crowdfunding.

## Arts Objective: Strengthen and grow the existing Arts industry in Alaska.

DCCED coordinated with the Governor's office and the Alaska Congressional Delegation to support Alaska Native artists' ability to sell their legally and sustainably harvested marine mammal-based art on the Etsy website. The Etsy platform gives Alaska Native artists access to a nationwide market for their artwork. In fall 2017, Senator Dan Sullivan introduced the Allowing Alaska IVORY Act, which would clarify federal authorizations for use of marine mammals and ivory. DCCED has also assisted in distributing brochures produced by the Alaska State Council

on the Arts and U.S. Department of the Interior that aim to educate consumers on the legal market for these products.

The Sealaska Heritage Institute (SHI), a regional nonprofit in Southeast Alaska, received a federal grant under the American Indian, Alaska Native, and Native Hawaiian Culture and Art Development Act to continue development of the Northwest Coast Learning Campus, to be based in Juneau. The Northwest Coast Learning Campus will provide dedicated space for Alaska Native artists and will promote cultural diversity and the survival of Alaska indigenous cultures. SHI has spent ten years researching Santa Fe, New Mexico as a model of the economic impact of regional history and cultures in the visitor industry and has identified 300 Native artists interested in utilizing the learning campus. The Learning Campus is part of a broader plan to make Juneau a capital of Northwest Coast arts, similar to the position of Santa Fe, New Mexico.

DCCED promoted business trainings for artists held by the Alaska State Council on the Arts' Silverhand program. They provided business training to Alaska Native artists.

DCCED staff conducted Made in Alaska outreach at regional economic meetings in Kotzebue and Bethel, including a visit to the Northwest Arctic Borough's Suilanich Art Center.

## Energy Objective: Reduce the energy cost burden on Alaska businesses and households.

The Alaska Energy Authority (AEA) undertakes numerous activities with its partners to reduce the energy cost burden for Alaskan homes and businesses. Just under $21.3 million in Power Cost Equalization (PCE) payments had been sent out to eligible communities for FY18, by the end of June 2018. Eligible utilities have until the last day of August to submit invoices for the prior fiscal year PCE payments. Complete FY18 payment amounts will be calculated after that date. These payments help to reduce the cost of power to residential and community facility customers in eligible rural communities.

Three hundred and sixty six homes completed the Home Energy Rebate program, administered through the Alaska Housing Finance Corporation. The program is no longer funded but has in the past provided grants of up to $10,000 to homeowners (with no income restrictions) to perform qualified energy efficiency improvements on their homes.

Four hundred and forty income eligible homes received weatherization services administered through the Alaska Housing Finance Corporation. The program provides services that reduce energy consumption and associated costs.

Battle Creek expansion of Bradley hydro facility began in FY18, the project will put an additional 37 million kWhs of low cost hydro onto the railbelt system annually starting in 2020. The project cost is $47 million.

The Rural Power System Upgrade (RPSU) program completed projects in three communities in FY18: Nunam Iqua, Kake, Port Alsworth and Kongiganak. RPSU projects improve the safety, reliability and affordability of electric power through powerhouse and distribution system improvements in communities with populations of up to 2,000 people. Three new Renewable Energy Fund projects came online in FY18.

The Bulk Fuel Upgrade (BFU) program completed projects in four communities: Kake, Shishmaref, Port Alsworth and Edna Bay. Twenty individuals received Bulk Fuel Operator training. Trainings are funded and coordinated by AEA and delivered at the Alaska Vocational Technical Center (AVTEC) in Seward.

Two Village Energy Efficiency Projects (VEEP) were completed in FY18 in Dillingham and McGrath. VEEP project grants pay for efficiency improvements in public building in rural communities, reducing energy consumption and associated costs. Alaska Native Tribal Health Consortium completed energy efficiency work on the community water/sewage systems in 19 communities.

Twenty seven utility operators received Power Plant Operator training. Trainings are funded and coordinated by AEA and delivered at the AVTEC in Seward. Twenty eight utility operators received Advanced Power Plan Operator training.

FY19 will include an increase in the type and frequency of training available through AEA. Trainings will be expanded to include utility business management training, online how-to videos, on-site technical training and a wider range in the length and depth of classes taught in person for which participants must travel.

The UA Center for Economic Development, in partnership with DED, Launch Alaska, and Renewable Energy Alaska Project, ran VOLT49, a renewable energy sprint. The event harnessed the creativity of 25 participants over five weeks to solve challenges related to the cost of energy in the state. Solutions include finance mechanisms to improve efficiency, an efficiency website, thermostat, and renewable-powered data center.

DED funded an Emerging Sector report on the opportunities for Alaska in renewable energy. The report highlighted Alaska's expertise in renewable energy and energy efficiency, and strategies for growing the sector. Encouraging the development of scalable business models and identifying new sources of project financing were some of the recommendations.

Launch Alaska completed their third cohort and invested in four more companies operating within the energy sector. All nine of Launch Alaska's portfolio companies are post revenue and aggressively scaling their firms. Launch expanded its reach beyond the energy sector and is now investing in companies solving problems in food, water and transportation. Lastly, Launch added additional capacity and will now be running two cohorts in 2019.

The Alaska Climate Change Policy, of which the Commissioner of DCCED is a participant, is a recent effort by the Governor to understand and mitigate some of these impacts. This policy includes reccommendations for increases in renewable energy.