

ExhibitGLongTermCommitment

State of Alaska

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## **Exhibit G Long Term Commitment**

The State of Alaska has continued to increase resilience in its local, regional, and state jurisdictions since March 27<sup>th</sup> when the Phase I application was submitted. This has been an ongoing approach by the State prior to NDRC application efforts, as indicated by previous work by State, Federal, regional and local entities. Such work include the ongoing Newtok Planning Group work to relocate the village to Mertarvik; work performed in the state by USACE in its community baseline assessment studies; DCRA's efforts in strategic management planning in the imperiled communities of Shaktoolik, Shishmaref and Kivalina; DHS&EM's work in tribal, local and statewide mitigation planning and application of State and FEMA mitigation program funding, particularly in rural communities. Most recently, the State is collaborating with the Denali Commission to study and effect the relocation of imperiled villages.

Galena was a regional hub during the 2015 Fire Season: In July 2015, a series of fires caused by lightning were located on both sides of the Yukon River within the Galena Fire Management Zone and the western end of the Tanana Zone, stretching over 150 river miles from east to west. Approximately 353,000 acres were consumed and threatened Nulato, Ruby, and Last Chance. Galena was a regional hub, and the Incident Command Team was set up at the Galena Aviation Hanger to assist the Galena BLM station during the fires. Galena assisted by having buildings available for leasing for office space, lodging, and dining. Galena residents and businesses leased trucks, boats, and a bus. Galena Airport is one of the largest airports in the TCC area and provided fuel and space for numerous aircrafts. Galena also had capacity to provide housing for evacuees. Other regional strengths that Galena provides include: a fuel depot; Elders' home; two major stores; a full-service clinic with a doctor on call; a mental health

department with two full-time counselors; two Alaska State troopers, a U.S. Fish & Wildlife office, and a boarding school.

As a demonstration of long-term commitment, DHS&EM submits for the annual pre-disaster mitigation (PDM) grant state setaside for state and local hazard mitigation plan updates on behalf of Alaska cities and tribes. **See dropbox for a list of plans developed under PDM and HMGP since 2012 and 2013 and also includes the overall plan for the next five years.**

DHS&EM has continued hazard mitigation grant programs in the following areas:

Galena State-funded residential elevations (9): Complete (TCC region); Galena: DR 4094 (FEMA 75%/State 25%) funded residential elevations (13)-Complete; \$1.7M; Galena: DR 4122 (FEMA 75%/State 25%) funded residential elevations (29)-Complete, \$5.1M; Kotlik: DR 1843 (FEMA 75%/State 25%) funded residential elevations (10)-Complete (AVCP region), \$1.35M; Alakanuk: DR 1843 (FEMA 75%/State 25%) funded residential elevations (10)-in progress (AVCP region), \$225K; Sleetmute: DR 1843 (FEMA 75%/State 25%) funded residential elevations (10)-Complete (AVCP region), \$990K; City of Hughes: DR 4161 (FEMA 75%/State 25%) funded City Hall elevations (10)-funded (TCC region); \$310K. DHS&EM is also managing the following projects as part of our long-term commitment to resiliency and mitigation: City of Angoon: DR 1992 embankment stabilization project \$392K, awarded; Alaska Railroad: PDM 14 Skookum Creek Mitigation project: \$2.4M; City of Quinhagak: DR 4054 3 home elevation and relocation project: \$260K-in progress; City of Galena: DR: 4094 City hall/Clinic elevation project submitted to FEMA Region X, \$1.2M; Newtok: DR 4162 12 home relocation to Mertarvik), project submitted to FEMA Region X, \$2.7M; and Newtok: DR 4162 5 home acquisition project, alternate project submitted to FEMA Region X, \$1.2M.

On May 28, 2015, AHFC announced the award of \$5.9 million in state funds, \$750,000 in HOME funds, and \$235,000 in Low Income housing Tax Credits for three new permanent supportive housing projects. Two projects meet the highest energy rating possible under the State of Alaska's energy efficiency standard which exceeds the IECC 2012 standard. Design features to improve resilience include: solar thermal (hot water) and photovoltaic (electricity) to offset more than 5% of the energy load for the building. These projects will provide energy efficient, resilient housing for very low income homeless people with physical and mental disabilities.

In July 2015, AHFC announced the availability of \$2.6 million in housing development funds for rural Alaskan projects focused on units for teachers, health care workers, and public safety employees. There is a direct connection between the services these professions provide and the resilience of the community based on student performance, the incidence of violence and domestic abuse and sexual assault, and health care needs. AHFC changed the threshold criteria for this program to require a statement and explanation on how the project would improve the resilience of the community, from location of the buildings to more socio-economic impacts. Communities within ¼ mile of a coastline or riverine system, communities that lie within a 100-year flood plain, or communities that have been shown to be susceptible to natural disasters (flood, wind, fire, etc.) are encouraged to apply and describe specific steps taken to reduce the impact of disasters to the physical structure, and how the project increases resiliency of the community in social and economic terms. The application cycle ends October 16, 2015. AHFC anticipates funding up to 10 new housing units that will add to the resilience of these communities substantially more than in previous years. AHFC has not

completed either funding round for this year and doesn't have any "projects funded" to report at the present time. [See dropbox for AHFC NOFA.](#)

In August 2015, foreign delegations from Canada, Russian and the Scandinavian countries, and many observing states came together in Anchorage, Alaska at a [Conference on Global Leadership in the Arctic: Cooperation, Innovation, Engagement and Resilience](#), otherwise known as GLACIER. Other high-level speakers at the event included Secretary of State John Kerry, Interior Secretary Sally Jewell and Norwegian Foreign Minister Borge Brende. Collectively with 19 European Union countries, they have stood by President Barack Obama and pledged their commitment through a joint statement to alleviate the effects of climate change in the Arctic (Alaska Dispatch News, September 7, 2015 and Arctic Newswire, August 29, 2015).

[Add to dropbox.](#)

With a historic visit to the Alaska Arctic in September 2015, President Obama was shining a spotlight on the plight of residents in more than 200 far-flung rural Alaskan villages, where Alaska Natives and others toil under rough-and-tumble conditions that most Americans would be hard-pressed to imagine. The president's goal was to showcase the havoc he says human-influenced climate change is wreaking on Alaska's delicate landscape: entire rural villages sinking into the ground as permafrost thaws, protective sea ice melts, and temperatures climb. Alaska Natives have joined the president in sounding the alarm on climate change. At the same time, temperatures in the Arctic are rising twice as fast as anywhere else on earth, the NOAA has said, bringing with it profound changes to Alaska's cherished landscape. Amid dire poverty and few resources, many rural villages have had their foundations literally pulled out from under them as the planet gets warmer. Permafrost, the layer of frozen ice under the surface, is thawing and causing homes, pipes and roads to sink as the soil quickly erodes. Some 100,000

Alaskans live in areas vulnerable to melting permafrost, the EPA estimates. And in coastal Alaska, sea ice that once offered critical protection is melting, exposing coastlines, causing more extreme ocean storm surges and risking mass emergency evacuations (Huffington Post, September 2, 2015). [See Dropbox for Huffington Post article.](#)

On September 2, 2015, President Obama announced a series of new investments to help Alaskans adapt to a rapidly changing environment. He requested \$14M in coordinating federal, state, and tribal resources to implement climate change solutions across Alaska. Thirty-one Alaska villages have only 10-20 years of livability before their streets, schools, and homes become uninhabitable. \$2M of this will be reserved to support relocation efforts and other resilience strategies for exceptionally vulnerable communities. Moving an entire community to a safer location mere miles away such as Newtok can cost anywhere from \$80M to \$250M. President Obama's pledge is the first financial recognition of the dire climate situation of tens of thousands of American citizens. Federal funding will support equitable and safe climate-related relocation and retreat efforts by communities in high-risk areas. For those staying in their ancestral homes, the funding will help improve critical clean drinking water infrastructure that has been compromised by melting permafrost and support renewable energy developments for rural communities that currently spend up to half of their income on diesel fuel. These federally-financed projects will be based on sound baseline data from supportive NOAA and EPA programs and implemented by local capacity building initiatives like the newly endowed Resilience AmeriCorps and internship program for tribal youth working on resilience projects (Alaska Dispatch News, September 7, 2015). [See dropbox.](#)

The Arctic Council is the leading intergovernmental forum promoting cooperation, coordination, and interaction among the Arctic states, Arctic Indigenous communities, and other

Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic. [See dropbox.](#) Of the scheduled Arctic Council Meetings from 2015 to 2017, ten meetings are located in Alaska. [See dropbox.](#)

On September 16, 2015, USDA awarded more than \$425,000 to ANTHC to help reduce the energy costs of providing sanitation services to residents in remote rural areas where the cost of producing electricity is extremely high. The grant to ANTHC, one of nine awarded through the High Energy Cost Grant program administered by USDA's Rural Utilities Service, will retrofit sanitation systems and train operators in eight communities across Alaska including Napaskiak, Nunapitchuk, Cheforak, Nightmute, Tuntutuliak, Newtok, Teller and Tununak. The \$426,916 project will increase energy efficiency by upgrading interior and exterior lighting; installing new controls for heating systems and laundry services, installing new controls for water storage and pumping; and making weatherization improvements.

On October 6-9, 2015, DMVA DHS&EM will host their Emergency Preparedness Conference. The Alaska Coalition on Housing and Homelessness workshop will be on October 12 to 14, 2015 and includes an address by Governor Bill Walker and Senator Lisa Murkowski.

On October 15-17, 2015, the Alaska Federation of Native (AFN) Convention will occur in Anchorage and is the largest representative annual gathering in the United States of any Native peoples. AFN membership includes 165 federally recognized tribes, 146 village corporations, 12 regional corporations, and 12 regional nonprofit and tribal consortiums that contract and compact to run federal and state programs. AFN is governed by a [38-member board](#), which is elected by its membership at the annual convention held each October. The mission of AFN is to enhance and promote the cultural, economic and political voice of the entire Alaska Native community. Policy guidelines and advocacy statements are set by the dozens of

resolutions passed by voting delegates at the Convention. Each year, the AFN Convention draws between 4,000–5,000 attendees. The proceedings are broadcast live statewide via television and radio and webcast to 70 countries worldwide.

### **Lessons Learned:**

Regional Native Tribal Organizations provide conferences and training projects in their regions for their population groups. AVCP Housing conducts an annual regional conference for its tribal members related to resilience and recovery every March or April. TCC held a Small Community Emergency Response Plan development workshop April 1-2, 2015 for its tribal members.

The Association of Alaska Housing Authorities (AAHA) coordinates Regional trainings and on-site technical assistance to tribes and regional housing authorities. The on-site technical assistance requests have a wide array of services depending on the needs of the Tribes/Regional Housing Authorities (RHAs). AAHA's Training & Technical Assistance (T&TA) Program helps Tribes and RHAs build sustainable and resilient communities. All services through the AAHA T&TA Program are free. Regional training programs from October 2015 to 2016 are listed in the dropbox. **Add to dropbox.** AVCP has requested through the AAHA program for HUD Office of Native American Program to develop a housing plan for Newtok/Metarvik.

AHFC developed tools for Energy Efficient retrofits for non-Residential properties and offers a variety of tools for facility owners to utilize in planning an energy-efficient retrofit. Consumer education includes professional level classes and webinars. The [www.akenergyefficiency.org](http://www.akenergyefficiency.org) website offers many resources for building owners to take advantage of in planning their retrofits. AHFC has produced a paper on Energy Use in Alaska's Public Facilities Strategic Energy Management Practices manual and a brochure called

“Introduction to Energy Efficiency, a Guide to managing Energy Use in Public and Commercial Facilities.” See [www.ahfc.us/classes](http://www.ahfc.us/classes) for class details and to download these and other publications related to public facility energy use in Alaska.

Since 2009, in addition to the classes and publications listed above, AHFC has developed a cadre of at least 60 professional commercial energy auditors. These people have performed over 500 energy audits in Alaska, and information on these audits is stored in the Alaska Retrofit Information System (ARIS) database. They use the AKWarm – C (commercial) energy auditing software, and data from these ratings has been used to produce the papers above. AHFC has also developed BMON, a building monitoring system that integrates multiple sources into one monitoring software. This system is open source and available at no charge to anyone who wishes to use it. The ARIS database is also a repository for energy usage, entered from utility bills, for any organization wishing to use it. Armed with the above information, facility owners can establish project feasibility using a cash flow calculator developed by AHFC to see an overview of the financial benefits of the project.

Future infrastructure development for non-residential EE retrofits is coming soon. A solicitation for energy efficiency project developers will be run prior to the end of 2015. These developers should be available to any non-residential building owner, municipal or school official to assist in creating a successful energy efficiency retrofit. They will also be able to provide contract energy management and maintenance services for those organizations who are too small to warrant full-time energy managers. Money to fund a retrofit is available through multiple financing options: Alaska Energy Efficiency Revolving Loan Program, AIDEA Loan Participations for Qualified Energy Developments, commercial lenders, DCCED Alternative

Energy Conservation Loan Fund, RCAC loan fund, USDA Business and Industry Loan Guarantee, USDA Rural Energy for America Program, and several other sources.

In the Phase I narrative, AHFC committed to changing the rating criteria for their Qualified Allocation Plan for the Low Income Housing Tax Credit to add a rating criteria on resilience for the 2015 funding cycle. AHFC decided not to pursue any changes to the allocation plan this year due to the lateness of the State Budget approval process and re-commits to changing the criteria for the 2016 cycle which will start in May 2016. This commitment will affect over \$25 million in housing development resources and produce over 100 new units of affordable housing for vulnerable populations from the current baseline of 5000 units.

#### Raising Standards:

Galena and Emmonak participate in the NFIP program, and there is a requirement in the local jurisdiction. After the 2013 qualifying event when the FEMA-State JFO provided the City of Galena updated data that indicated that their 1983 FIS-BFE of 131.5 feet under-estimated the flood risk, the City made the decision to self-regulate to a higher standard than required by the NFIP and adopted a two-foot freeboard above Base Flood Elevation for the lowest floor requirement. The qualifying event in Teller was to their electrical system, and this event did not necessitate any changes to their standards. Nearly all villages in the Yukon-Kuskokwim Delta including Emmonak are situated in flood plains; housing units are built in a manner that elevates the lowest floor of home units above a minimum standard at Base Flood Elevation.

Teller and Newtok are not in the NFIP program. Mertarvik is located high above the natural floodplain, and the relocation of Newtok to Mertarvik will permanently mitigate potential flooding hazards.

#### **Resilience actions related to Plan Updates or Alignment:**

All four communities have hazard mitigation plans. [See dropbox.](#) The City of Galena and Louden Tribal Council finalized a Multi-Jurisdictional HMP on September 7, 2015. The City of Teller updated their HMP in 2013. The City of Newtok's tribal and local HMP draft has been completed in September 2015. When Mertarvik is occupied, the State of Alaska will develop a HMP accordingly. DHS&EM will work with these communities to update their HMPs as appropriate.

AHFC is the lead agency in preparation of the Consolidated Housing Plan for the Balance of the State (outside Anchorage). The Plan includes the Analysis of Impediments to Fair Housing Choice. The most current version contains both the 5 year HCD plan and the first year action plan which starts on page 85 [\(see dropbox\).](#)

AHFC provides financial support (\$25,000) for the development of the balance of state continuum of care for the homeless which is prepared by the members of the Continuum of Care. It's based on the Federal Fiscal Year; the most recent is FFY 2014 and is contained in the [dropbox.](#)

EDA provided a small short-term planning grant to TCC to develop a regional CEDS which includes Galena. TCC has a 2015-2020 Strategic Plan [\(see dropbox\).](#) Teller is covered by the regional CEDS that Kawerak, Inc. develops and maintains for the Norton Sound Region; and Emmonak and Newtok/Mertarvik are covered by the regional CEDS developed and maintained by AVCP. [See dropbox.](#)

Per the TCC 2015-2020 Strategic Plan, TCC is currently developing a regional economic development strategy, a regional transportation plan, and a regional energy plan. [See dropbox.](#)

Teller has a Local Economic Development Plan for 2013-2018. [See dropbox.](#)

In Phase I, we referenced the Final report of the Immediate Action Work (IAW) group from 2008 as the state's climate action plan; see dropbox for [Attachment? \(Add 2008 Climate Action Plan\)](#). The IAW group became dormant but has been reactivated as of September 24, 2015. The State of Alaska's climate change adaptation plan was outlined in concrete steps in the March 2009 report from the Sub-Cabinet on Climate Change IAW and the Adaptation Working Group. These steps from the State's Immediate Action Work Group outline the state's recipe for success on addressing climate change; 1) Begin by developing a collaborative organizational structure that can focus the combined capabilities of local, regional, state, and federal stakeholders on the problems at hand; 2) Discuss the nature and extent of the potential climate change impacts and create an applied approach to addressing significant impacts; 3) Identify the communities at risk, timeframe, and the true needs to address climate change impacts; 4) Develop a methodology for prioritization of needs based on the risk to lives, health, infrastructure, homes, businesses, subsistence harvests, significant cultural attributes, and the quality of life; 5) determine the true needs of coastal communities subjected climate change impacts; 6) Develop measures that meet the stated needs and combine those measures into alternative plans for comparison. The Adaptation Work Group identified 5 specific areas to form the basis of an adaptation plan for Alaska: 1) data collection, analysis and monitoring and promoting resilience in all infrastructure development; 2) sustaining Alaska's essential food, water systems, and cultural well-being; 3) evaluating climate change impacts and risk scenarios for the Alaskan economy, by improving mapping, surveying, charting and imagery data; 4) augment surveillance and control programs and assess climate change impacts on water and food borne diseases, sanitation infrastructure, archeological sites and gravesites; and 5) establish an

Alaska climate change knowledge network and promote climate change science through K-12 education.

**Resilience actions related to financing and economic issues:**

The Alaska Rural Utility Collaborative (ARUC) manages water and sewer systems in partnership with rural Alaska communities, resulting in a more cost-effective O&M approach. Important features of ARUC are: ARUC sets rates with community council input. Each community's rates are set to be self-supporting, so rates will vary per community; ARUC hires a local water plant operator (and backup) in each community at good wages and retirement benefits; ARUC purchases all fuel, parts, electricity, etc. for water/sewer system with money collected from water/sewer customers; ARUC often can find grant money to purchase fuel, supplies, and needed parts and repairs for ARUC communities in the first year of membership; ARUC communities meet all RUBA essential indicators, unless a community owes IRS taxes ; Each ARUC community selects a community member to represent them on the ARUC Advisory Committee that meets four times per year; and ARUC communities receive monthly financial statements and yearly reports. Money from each community's customers is only used to pay expenses from that community.