

Agency: Commerce, Community and Economic Development**Grants to Municipalities (AS 37.05.315)****Grant Recipient: Fairbanks North Star Borough****Federal Tax ID: 920030612****Project Title:****Project Type: New Construction and Land Acquisition**

Fairbanks North Star Borough - Natural Gas Distribution System Development

State Funding Requested: \$32,900,000**House District: Fairbanks Areawide (7-11)**

Future Funding May Be Requested

Brief Project Description:

Preliminary results of the state-funded cost and design study for a natural gas distribution system for the Fairbanks North Star Borough provide an estimated cost for the engineering, permitting and right-of-way necessary for construction of the system. This funding request will allow that engineering, permitting and right-of-way work to proceed.

Funding Plan:

Total Project Cost:	\$32,900,000
Funding Already Secured:	(\$0)
FY2013 State Funding Request:	<u>(\$32,900,000)</u>
Project Deficit:	\$0

Detailed Project Description and Justification:

A state-funded cost and design study is underway and has generated preliminary results sufficient to delineate the cost to perform necessary pre-construction work such as project engineering, and permit and right-of-way identification and acquisition.

The Preliminary Executive Summary Report (PESR) of the Fairbanks North Star Borough (FNSB) Gas Distribution System Analysis describes a system which, if fully constructed and subscribed, would deliver cleaner-burning, reduced cost energy to over 84% of the FNSB's residential structures (21,076 of 24,986), over 94% its commercial structures (924 of 978) and virtually all of its industrial, electrical generation and CHP facilities. Preliminary results also indicate full utilization of the designed system could reduce PM2.5 emissions within the High Demand regions of the FNSB's Non-attainment Area by up to 95% and thereby bring it into compliance with current EPA Clean Air Standards.

For the FNSB to serve (as it does regarding all proposed Prudhoe-south instate natural gas transmission initiatives) as a substantial or necessary load center, its existing natural gas distributive and consumptive infrastructure will need to be rapidly and radically expanded to meet or exceed its PESR identified 20.9 Bcf/y market. Also, under any scenario, said system construction will need to be preceded by the production of more detailed system design and engineering, identification and acquisition of local, state and federal permits and identification and establishment of local rights-of-way. Finally, for the FNSB and the State to craft a plan for PM 2.5 reduction sufficient, in both effect and timeliness, to avoid EPA sanction, they will need to address the physical and economic justifications for home oil, wood and coal burning, and take concrete steps for their supersession by a cleaner, more affordable space heating option.

Therefore, the benefits of uninterrupted project continuation -- in the form of immediate initiation of FNSB natural gas distribution system engineering, permitting and right-of-way - accrue to both the FNSB and the State as a whole.

During the 2011 Legislative Session, the Legislature appropriated \$500,000 in capital grant funds to the Fairbanks North Star Borough to conduct a cost and design study for a natural gas distribution system for the Fairbanks North Star Borough. That study - the Fairbanks North Star Borough (FNSB) Gas Distribution System Analysis -- is currently under way. Activities in its regard include: defining the size, scope and composition of the existing FNSB energy market; determining the current and potential FNSB market for natural gas; preparing conceptual designs a distribution system(s) to more fully and adequately serve that market; preparing conceptual rate schedules; preparing conceptual construction cost estimates; preparing cost/revenue comparisons between various scenarios; recommending a most feasible/practical conceptual design; recommending construction phasing; and defining the likely impacts of system build-out on regional air quality.

The justification for the Analysis, and the appropriation which allowed it to commence, are numerous: Currently, the FNSB relies heavily on high cost oil-derived products for satisfaction of all three components of its energy needs. In the case of space heating -- 68% of the community's total energy requirement -- the reliance of FNSB residents on fuel oil is near exclusive. This over-reliance on heating oil has. In recent years, had an increasingly constrictive effect on the local economy and crushing impact on finances of local homes and businesses. It has also had a detrimental impact on the physical health of FNSB residents -- indicated by the FNSB's EPA Clean Air non-compliance - as more and more residents have sought to use wood and coal burning as a hedge against rising oil costs.

Past, third-party analyses indicated wide-spread adoption of natural gas within the FNSB might help address these problems and, therefore, the Legislature acted to both ground-truth this assumption and, if proven, hasten the solution's implementation.

Recently, a Preliminary Executive Summary Report (PESR) of the Analysis has been produced which provides preliminary designs, findings and results regarding an expansion FNSB natural gas system. The preliminary market determination estimates a natural gas demand within the FNSB roughly equivalent to the yearly volume of gas thru-put required to allow the AGDC ASAP project to be economically viable (20.9bcf/y) and describes a fully-piped conceptual distribution system layout sufficient to make that gas available all the residential, commercial, and industrial users in the community's high and medium density zones. Preliminary results also indicate full utilization of the designed system could reduce PM2.5 emissions within the High Demand regions of the FNSB's Non-attainment Area by up to 95% - a reduction critical if the FNSB and State are to come into compliance with current EPA Clean Air Standards in time to avoid painful sanctions.

Necessary steps toward construction of this or any other community-wide piped natural gas distribution system are the creation of detailed system design and engineering, the identification and acquisition of local, state and federal permits, and the identification and establishment of local rights-of-way. Therefore, to serve as the basis for a rapid build-out of the FNSB's natural gas distribution system in support of any transAlaska natural gas transmission project, and so the State can show concrete action in pursuit of EPA Clean Air compliance, the FNSB proposes uninterrupted project continuation through the appropriation of funds to allow for commencement of engineering, permitting and right-of-way work within FY 2012.

Project Timeline:

The FNSB will initiate the process in late FY 2012 and will complete it within FY 2017.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Fairbanks North Star Borough

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No