

**Agency: Commerce, Community and Economic Development****Grants to Municipalities (AS 37.05.315)****Grant Recipient: Unalaska****Federal Tax ID: 92-0036399****Project Title:****Project Type: Equipment and Materials**

# Unalaska - Generator Purchase, Installation, Training, and Startup

**State Funding Requested: \$4,500,000****House District: 37 / S**

One-Time Need

**Brief Project Description:**

Installation of a new caterpillar C-280-16.

**Funding Plan:**

Total Project Cost:	\$7,881,586
Funding Already Secured:	(\$3,375,000)
FY2015 State Funding Request:	(\$4,500,000)
Project Deficit:	\$6,586

*Funding Details:*

\$2,375,000 - Unalaska General Fund on 5/14/2013.

\$1,000,000 - Alaska Legislative Grant on 10/16/2013.

**Detailed Project Description and Justification:**

In December 2011, the City of Unalaska completed the Unalaska Powerhouse Expansion Project. This Project consisted of constructing a two bay, 16,000 sq. ft. Powerhouse and the installation of two 12V32 Wartsila Gen/Sets in Bay 1, and one Caterpillar C-280-16 Gen/Set in Bay 2, which has two additional C-280-16 foundation pads. Now that the main construction of the Unalaska Powerhouse is complete, the City needs to ensure that future electrical loads are met and the Powerhouse can maintain reserve capacity.

The new Unalaska Powerhouse has a total electrical production capacity 17,232 kW. Production capacity consists of two 12V32 Wartsila Generator Sets, which produce 5,211 kW each, and one Caterpillar C-280-16, which produces 4,400 kW. The new Unalaska Powerhouse also receives 2,410 kW from two Caterpillar 3516 Generator Sets at the Old Unalaska Powerhouse. Unalaska has requests from businesses for 4,500 kW of additional electrical power. The Unalaska Powerhouse generating capacity is able to meet this additional demand but will not have any reserve power should one of the bigger Generator Sets unexpectedly shut down.

At this time, the Unalaska Powerhouse has a peak load of 9,200 kW. When the request for the additional 4,500 kW is met, the peak load will increase to 13,000 kW. If one of the main generator sets unexpectedly shuts down, 5,211 kW is removed from the production capacity. The remaining 12,021 kW production capacity falls short of meeting our 13,000 kW peak load. Since the peak load will not be met, industrial users will be removed from the electrical grid until electrical production can meet the electrical load.

Prudent utility practice requires that a utility maintain sufficient generating capacity such that loads can be met in the event of an unscheduled outage or if peak requirements are greater than anticipated. Not doing so would put a great burden on the residents of Unalaska. This project will also insure a reliable and fair priced electrical source for the residents and businesses of Unalaska.

Total cost for this project is \$7,881,586. The \$4,500,000 requested will be used to install a new Caterpillar C-280-16 Generator Set. The remaining cost of the project will be paid for by the City of Unalaska.

Unalaska is the number one commercial fishing port in the nation. Our contribution to Alaska's tax base exceeds \$27 million per year, which is twice the State of Alaska per capita average. Investment in Unalaska infrastructure also strengthens this tax producing infrastructure.

### Project Timeline:

Engineering completed May 2013  
 Equipment Purchase - July 2013  
 Construction completed - December 2015

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

City of Unalaska

### 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

This picture is of our existing C-280-16 during 2011 installation. The \$4,500,000 requested will be used for the installation of a new C-280-16 Generator Set. Total cost for this project is \$7,881,586. Remaining costs will be paid for by the City of Unalaska.

