

**Agency: Commerce, Community and Economic Development****Grants to Municipalities (AS 37.05.315)****Grant Recipient: Sitka****Federal Tax ID: 92-0041163****Project Title:****Project Type: Maintenance and Repairs**

# Sitka - Supplemental & Emergency Diesel Generation

**State Funding Requested: \$7,125,000**  
One-Time Need**House District: 2 / A****Brief Project Description:**

Purchase of 15 megawatt fuel oil-fired turbine generator to secure Sitka's power supply.

**Funding Plan:**

Total Project Cost:	\$9,500,000
Funding Already Secured:	(\$538,070)
FY2013 State Funding Request:	<u>(\$7,125,000)</u>
Project Deficit:	\$1,836,930

*Funding Details:**Additional Funding:*

\$1,836,930 Municipal

**Detailed Project Description and Justification:**

Funding will purchase a 15 megawatt fuel oil-fired turbine generator to secure Sitka's power supply.

Sitka has a single transmission line to transport its hydroelectric power into town. The 1.7-mile transmission lines segment between the Blue Lake Hydroelectric Powerplant and the Thimbleberry Lake area runs high over the ridge by Heart Lake and is not accessible by road. This area is subject to rockslides and tree hazards and was responsible for a three-day line outage in 2002 and additional outages in March and September 2010. Since it is difficult to get line equipment into this area, a line outage could isolate Sitka from its hydroelectric power plants for weeks until line repairs could be made.

The stand-by Jarvis Street Diesel plant can only carry one third of the City load in winter, so rolling blackouts have been and would be required. A one week hydroelectric outage burns about 160,000 gallons of fuel (\$800,000 per week assuming \$5 per gallon price) and could cause great economic damage to the community. If fish processors are forced to shut down during commercial fishing, the effects could be in the millions. Depending on the time of year, the diesel plant is 5-11 megawatts short of meeting system load.

With adequate emergency diesel generation, potential rolling blackouts and threats to the economic viability of the community would be minimized during a transmission line outage. Having sufficient diesel generation to carry the entire system load would also allow scheduled outages on the transmission line to perform critical maintenance and line upgrades, thereby improving overall system reliability.

Sitka's existing 11 megawatt standby/emergency diesel plant lacks adequate capacity for existing system load and has

**\$7,125,000  
Approved**

significant operational and regulatory challenges. Three of the four diesel units, approximately 7 megawatts of capacity, are over 30 years old and have reached the end of their service life. Additionally, these machines will not meet required EPA emission standards on a long-term basis without expensive testing, overhaul, and secondary emissions treatment. This project would supplement these units with a new 15 megawatt fuel oil fired turbine generator.

Load growth studies and present trends indicate as much as 5,000,000 gallons of diesel generation may be required prior to the completion of the hydroelectric expansion project. The City and Borough of Sitka has completed work on all State and Federal permits to upgrade its existing air quality permits to allow for additional diesel generation. Due to the age of the older diesel units, they are limited on hours of operation due to emissions and efficiency constraints.

**Project Timeline:**

An air quality permit application to the Alaska Department of Environmental Conservation was accepted on December 15, 2011. This is the first step in permitting a new installation. There are new EPA regulations that require expensive emissions control equipment on existing diesels and the compliance deadline is May 13, 2013. It is the City's intent to procure and install new diesel generation that will meet these requirements prior to the EPA deadline.

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

City and Borough of Sitka

**Grant Recipient Contact Information:**

Name: Marlene Campbell City and Borough of Sitka  
Title: Govt Relations Director  
Address: 100 Lincoln St.  
Sitka, Alaska 99835  
Phone Number: (907)747-1855  
Email: campbell@cityofsitka.com

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

## FY2013 CBS LEGISLATIVE CAPITAL PROJECT REQUEST

### Project Title: SUPPLEMENTAL/EMERGENCY DIESEL GENERATION

Total Project Cost:	\$ 9,500,000 (100%)
Funding Already Secured:	\$ 538,070 (6%)
FY 2013 State Funding Request:	\$ 7,125,000 State (75%)
Additional Funding Required/Outstanding:	\$ 1,836,930 Municipal (19%)
City and Borough of Sitka Federal Tax ID Number:	92-0041163

### Transmission Deficiencies

Sitka has a single transmission line to transport its hydroelectric power into town. The 1.7-mile transmission lines segment between the Blue Lake Hydroelectric Powerplant and the Thimbleberry Lake area runs high over the ridge by Heart Lake and is not accessible by road. This area is subject to rockslides and tree hazards and was responsible for a three day line outage in 2002 and another outage in March and September 2010. Since it is difficult to get line equipment into this area, a line outage could isolate Sitka from its hydroelectric power plants for weeks until line repairs could be made.

The stand-by Jarvis Street Diesel plant can only carry one third of the City load in winter, so rolling blackouts have been and would be required. A one week hydroelectric outage burns about 160,000 gallons of fuel (\$800,000 per week assuming \$5 per gallon price) and could cause a great deal of economic damage to the community, potentially millions of dollars if the fish processors are forced to shut down during commercial fishing. Depending on the time of year, the diesel plant is 5-11 MW short of meeting system load.

With adequate emergency diesel generation, potential rolling blackouts and threats to the economic viability of the community would be minimized during a transmission line outage. Having sufficient diesel generation to carry the entire system load would also allow scheduled outages on the transmission line to perform critical maintenance and line upgrades, thereby improving overall system reliability.

### Generation Deficiencies

Sitka's existing 11MW standby/emergency diesel plant lacks adequate capacity for existing system load, and has significant operational and regulatory challenges. Three of the four diesel units, approximately 7MW of capacity, are over 30 years old and have reached the end of their service life. In addition to the reliability issues, these machines will not meet required EPA emission standards on a long term basis without expensive testing, overhaul, and secondary emissions treatment. **This project would supplement these units with a new 15 megawatt fuel oil fired turbine generator.**

Load growth studies and present trends indicate as much as 5,000,000 gallons of diesel generation may be required prior to the completion of the hydroelectric expansion project. CBS has completed work on all State and Federal permits to upgrade CBS existing air quality permits to allow for additional diesel generation. Due to the age of the older diesel units, they are limited on hours of operation due to emissions and efficiency constraints.

**CITY AND BOROUGH OF SITKA**

**RESOLUTION 2011-22**

**A RESOLUTION BY THE CITY AND BOROUGH OF SITKA (CBS)  
SUBMITTING CBS 2013 STATE LEGISLATIVE PRIORITIES  
TO STATE OF ALASKA AND 2012 LEGISLATURE**

**WHEREAS**, the City and Borough of Sitka advocates cooperating and sharing resources with the State of Alaska to maximize public infrastructure and services for the citizens of Alaska in the most efficient, cost effective manner; and

**WHEREAS**, the State of Alaska has inadequately maintained State owned facilities and passed unfunded mandates on to municipalities; and


**WHEREAS**, municipalities have suffered major budget impacts from State management of the PERS/TRS system, State harbors, State roads and utilities, and other State responsibilities which should be compensated.

**NOW, THEREFORE, BE IT RESOLVED** that the Assembly of the City and Borough of Sitka, Alaska, adopts the following FY2013 State Legislative Priorities and urges the Alaska State Legislature to support them to the maximum extent possible:


- **State Revenue Sharing/Local Tax Relief** – The City and Borough of Sitka supports the State Revenue Sharing on a sustainable basis to equitably compensate Alaska communities for providing local services.
- **Education** – State funding should be increased to cover escalating transportation expenses, the rising costs of fuel and energy, and reasonable new costs to improve the quality of education.
- **Local Control and Maximum Local Self-Government Guaranteed by the Alaska Constitution** – The Legislature should defeat any legislation that creates new unfunded mandates or takes away existing powers of local governments. The State should fund existing unfunded State mandates.
- **Deferred Maintenance of Harbors** – The State should fully fund the deferred maintenance of State harbors transferred to local governments. In addition, the State should fully fund the 50 percent matching grants legislated by SB 291, the Municipal Harbor Facility Grant Fund, to assist with future harbor upgrades.

**NOW FURTHER BE IT RESOLVED** that the Assembly submits the enclosed FY2013 City and Borough of Sitka Legislative Priorities, CBS Legislative Capital Project Requests and CBS Requests for State Funding for State Facilities in priority order to the 2012 Session of the Alaska State Legislature and State of Alaska.

**PASSED, APPROVED, AND ADOPTED** by the Assembly of the City and Borough of Sitka, Alaska, on this 27<sup>th</sup> day of September, 2011.

  
Cheryl Westover, Mayor

ATTEST:

  
Colleen Ingman, MMC  
Municipal Clerk