Agency: Commerce, Community and Economic Development

Grant Recipient: Sitka

Federal Tax ID: 92-0041163

Project Type: Remodel, Reconstruction and Upgrades

AEA - Sitka Blue Lake Hydroelectric Project Expansion

State Funding Requested: $28,500,000

House District: 2 / A

One-Time Need

Brief Project Description:

Project will construct an expansion of the Blue Lake Hydroelectric Project to its maximum energy capacity and secure Sitka’s energy base.

Funding Plan:

<table>
<thead>
<tr>
<th>Total Project Cost:</th>
<th>$100,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Already Secured:</td>
<td>($59,000,000)</td>
</tr>
<tr>
<td>FY2012 State Funding Request:</td>
<td>($28,500,000)</td>
</tr>
<tr>
<td>Project Deficit:</td>
<td>$12,500,000</td>
</tr>
</tbody>
</table>

Funding Details:

FY 2012 Federal Funding Request $12,500,000

Additional funding Required/Outstanding: $38,500,000 - Municipal

Detailed Project Description and Justification:

This project will expand the Blue Lake Hydroelectric Project and maximize its energy generating capacity. Sitka has exhausted its hydroelectric generation, and is on the verge of being forced to revert to diesel power that would have devastating consequences for the community and Southeast region.

The City & Borough of Sitka requests financial assistance in constructing the expansion of the Blue Lake Hydroelectric Project. Assistance is requested from the State to fund the project with the goal of ultimately financing the project with 50% state funds and 50% local funds, if federal funding is not forthcoming.

The Blue Lake Hydroelectric Project will raise the height of the existing dam by 83 feet to 425 feet; construct a new intake structure, and a new powerhouse. The new project will replace two 3 Megawatt generators with three 5.3 megawatt generators, increasing capacity to 17 megawatt. This will increase Sitka’s total hydroelectric energy production by about 32,000 megawatt hours or 29% of system capacity. Sitka is aggressively engaged in the preliminary engineering and licensing the expansion. The goal is to complete the construction and bring this new hydroelectric capacity on line in 2015.

Load studies predict Sitka will need up to 5 million gallons of fuel oil to power diesel generators prior to completion of the Blue Lake expansion. Sitka homes and businesses are moving from the high cost of heating oil to clean, renewable hydroelectric energy. The total energy requirements of Sitka are currently met by about 80% oil and 20% hydroelectric energy resources. Annual kilowatt hours sold in FY'09 increased by 3.36% over FY'08, which follows load increases of 4.5% in FY'08, and 8% in FY'06. Base-case load studies have predicted annual load growth at approximately 1.2 percent, yet the electric system has seen unprecedented growth, averaging 3.8% annually since 1973. The existing hydroelectric generation is now operating at over 96% capacity. It is expected that volatile oil prices will continue the trend of significant increase.

Contact Name: Miles Baker
Contact Number: 465-3873
system load growth and that any new hydroelectric capacity will be fully utilized to displace oil for space and water heating.

Despite The City & Borough of Sitka actively promoting energy conservation, hydroelectric energy usage is escalating at a rate that will shortly exceed system capacity. Sitka is actively working to complete the project as quickly as possible and is pledging up to 50% of the total project costs. Cost effective hydropower is a necessary for community growth. This project is vital to Sitka’s future and is a top regional priority.

**Project Timeline:**
The goal is to complete the construction and bring this new hydroelectric capacity on line in 2015.

Engineering, Design and Geotechnical; FERC license submittal FY 2010-11.

**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? X Yes □ No
Representative Peggy Wilson
Senator Bert Stedman
Sean Parnell, A.F.A
Karen Kohidel, OMB

Cheryi Weyvourer, Mayor

Sincecy,

Thank you for your leadership and service to our State. The Blue Lake Hydroelectric Project and the State's full partnership to help fund construction in 2012

The Blue Lake Hydroelectric Project will make this project a reality.

$43,000 for this match. The State's $41,000 will make this project a reality.

The Sitka Cross Trail Multi-modal Project is a Federally Funded STIP project, but a 9.03% match requirement was later added. Sitka TrailWalkers, Rainbown Foundation, and CBS committed

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Thank you for including the CBS Utilitarian Disposition Facility $387,500 DEG grant in your

Budget. This is the City's number one highest legislative priority. This document

...er, final comments on funding for sitka's highest priority, The Blue Lake Hydroelectric Project, and a more secure future.

sitka is achieving much needed stability, economic development, and a more secure future.

The FY2012 Capital Budget includes funding critical to the City and Borough of sitka's (CBS) and

City and Borough of sitka

100 Lincoln Street • Sitka, Alaska 99835

May 23, 2011

The Honorable Sean Parnell
1000-0000
P.O. Box 111
Governor's Suite, Alaska
The Homerotic, 99835
December 2014, there will be about $2,000,000 spent in year-up and clean-up activities over the condominium period ending in midsummer 2015. There will be a peak over the construction period ending in summer 2017, and the completion is scheduled to last until the beginning of actual construction in early 2018. The funding is scheduled to cover the costs of actual construction in the current phase of the project, which pays for site preparation, construction, and the major improvements in the $420,000 available to cover.

**Entire Funding Plan**: The City and Borough of Sitska has about $420,000 available to cover.

The City's funding for the construction phase of the project will be matched by the current State funding request. The goal is to complete construction and bring this project to completion by the end of the construction period.

The project involves a new pumped-storage hydroelectric power plant. The project will increase the existing electrical production by 27% and will involve the construction of a new power plant and new section of power lines. The project is expected to support a new power plant to be constructed adjacent to the existing power plant, and it is a priority for several years.

The project has been selected by the Southeast Conference, Alaska Energy Authority, and the Advisory Board and has been approved by the local, state, and federal government. The project will involve the construction of new power lines and new section of power lines to supply electricity to the existing power plant.

**TOTAL STATE FUNDING**: Federal funding - already secured by the State.

**TOTAL MUNICIPAL FUNDING**: City funds still required to be bonded.

**TOTAL PROJECT COST**: $100,000,000

**City and Borough of Sitska FY2012 Capital Project Request**

**SITKA BLUE LAKE HYDROELECTRIC EXPANSION PROJECT**
To date, regional power has been too expensive and is not available. The projected cost of the project is significantly lower than the current power sources available. The City of St. John has committed to a power plant that will be completed within 12 months. The power plant will provide 24/7 service to the city and will be able to handle peak loads. The project is expected to be completed by the end of 2017.
CITY AND BOROUGH OF SITKA

RESOLUTION 2010-32

A RESOLUTION BY THE CITY AND BOROUGH OF SITKA (CBS)
SUBMITTING CBS 2012 STATE LEGISLATIVE PRIORITIES
TO STATE OF ALASKA AND 2011 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 FY2012 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 provided 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 FY2012 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 2011 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 30th day of November, 2010.

Cheryl Vestover, Mayor

ATTEST:

Colleen Ingman, MMC
Municipal Clerk
SITKA BLUE LAKE HYDROELECTRIC EXPANSION

Project Description:

The Blue Lake Hydroelectric Project will raise the height of the existing dam by 83 feet to 425 feet; construct a new intake structure and a new section of power tunnel to a new powerhouse. The new powerhouse will replace the existing two 4 MW generators with three 6 MW generators. This will increase installed capacity from 8 MW to 18 MW, with an increase in Sitka’s average total annual hydroelectric energy production by about 35,400 MW hours or 29 percent of system capacity. Sitka is aggressively engaged in the preliminary engineering and licensing phase of this expansion of its hydroelectric capability at Blue Lake. The goal is to complete the construction and bring this new hydroelectric capacity on line in 2015.

How will the funds be spent?

Appropriated funds will be utilized for project material purchase and project construction. Initial cost estimates from the Comprehensive Design Development Report are as follows:

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparatory Work</td>
<td>$8,320,000</td>
</tr>
<tr>
<td>Arch Dam Raise</td>
<td>$8,900,000</td>
</tr>
<tr>
<td>Intake Tunnel &amp; Gate Shift Excavation</td>
<td>$3,730,000</td>
</tr>
<tr>
<td>Surge Chamber Excavation</td>
<td>$4,060,000</td>
</tr>
<tr>
<td>Intake Civil Works and Equipment</td>
<td>$1,530,000</td>
</tr>
<tr>
<td>Tunnel Refurbishment</td>
<td>$1,950,000</td>
</tr>
<tr>
<td>New Penstock</td>
<td>$3,750,000</td>
</tr>
<tr>
<td>Powerhouse Civil and Access Road</td>
<td>$7,646,000</td>
</tr>
<tr>
<td>Powerhouse Mechanical Equipment</td>
<td>$8,938,000</td>
</tr>
<tr>
<td>Powerhouse Electrical Equipment</td>
<td>$8,500,000</td>
</tr>
<tr>
<td>Switchyard Upgrade</td>
<td>$1,732,000</td>
</tr>
<tr>
<td>Escalation during Construction</td>
<td>$780,000</td>
</tr>
<tr>
<td>Contingency</td>
<td>$14,604,000</td>
</tr>
<tr>
<td>Engineering and Administration</td>
<td>$9,350,000</td>
</tr>
<tr>
<td>Interest During Construction</td>
<td>$4,170,000</td>
</tr>
<tr>
<td>Escalation (January 2012 Bid)</td>
<td>$5,380,000</td>
</tr>
<tr>
<td>Reserve Account</td>
<td>$3,650,000</td>
</tr>
<tr>
<td>Cost of Debt Issuance</td>
<td>$3,010,000</td>
</tr>
</tbody>
</table>

TOTAL PROJECT COST: $100,000,000

How many jobs will be created through this project?
To date, approximately 35 jobs have been created through this project, including 10 local positions. Various field studies and surveying work is being completed utilizing local resources. During the construction phase, up to 100 jobs will be created for the 21.4 year period of project construction.
Resolution No. 2011-01
Advisory Work Group for the Southeast Alaska Integrated Resource Plan

Whereas: The Alaska Energy Authority is conducting a Southeast Integrated Resource Plan as directed by the 26th Alaska State Legislature.

Whereas: The Southeast Integrated Resource Plan will not be completed until January 2012.

Whereas: Many citizens and businesses in the Southeast are suffering severe economic impact from the high cost of oil contributing to very high electricity and space heating costs.

Whereas: The following list of projects will help alleviate the impacts of the high cost of oil on citizens and businesses in the Southeast.

Whereas: The following list of projects have been under development for many years, have completed or nearly completed exhaustive FERC licensing or similar process, and have broad public support.

NOW THEREFORE BE IT RESOLVED THAT The Advisory Work Group for the Southeast Alaska Integrated Resource Plan unanimously requests that AEA accelerate consideration of the below listed projects and that they not be delayed as AEA conducts the SE Integrated Resource Plan project.

NOW THEREFORE BE IT FURTHER RESOLVED THAT The Advisory Work Group for the Southeast Alaska Integrated Resource Plan unanimously requests that the 27th Alaska State Legislature provide funding for the continued development of the following projects in alphabetical order to provide relief to the citizens and businesses in Southeast Alaska from the high cost of electricity and space heating.

- Blue Lake Hydro
- Kake to Petersburg Intertie
- Metlakatla to Ketchikan Intertie
  - Reynolds Creek Hydro
  - Thayer Creek Hydro
  - Whitman Lake Hydro

By: [Signature]  Date: March 21, 2011
Rick Harris, Executive Vice President, Sealaska Corporation
Chairman, Southeast Alaska Integrated Resource Plan Advisory Work Group
Welcome Legislators!

Thank you all for your continued leadership and hard work on behalf of our region. Southeast has made great strides in many areas – but especially on the energy front. The establishment of the renewable energy grant fund and subsequent funding has seen unprecedented investment in many projects and the creation of HB 306 and SB 220 (with the southeast energy fund) will help the region achieve its quest toward energy security and diesel-independence.

This year’s main task will be the development of the Southeast Integrated Resource Plan (IRP). This IRP will be one of the most important documents produced for the region since our 1997 Intertie System Plan (and subsequent updates in 2003/2005) and will provide guidance to communities, utilities – and the State of Alaska as energy infrastructure gets planned for and constructed in our region.

But while we wait for the conclusions of the IRP, there are a number of projects that have been recognized throughout the region that need funding now. The following list of energy projects are offered for your consideration (listed in alphabetical order):

- **Blue Lake Hydro** - The scope of this project is to raise the height of the existing dam by 83 feet construct a new intake gate and a new section of power tunnel to supply a new powerhouse to be constructed adjacent to the existing powerhouse.

- **Kake to Petersburg Intertie** – This project has entered the NEPA phase and is funded through the environmental process. The community of Kake is seeking funding so that the project can begin construction as soon as the intertie is designed and permitted (estimated spring 2012).

- **Metlakatla to Ketchikan Intertie** – The combined hydros at Chester Lake and Purple Lake generate surplus power that could be dispatched to Ketchikan or to Kake via the Southeast Alaska Power Agency (SEAPA) intertie system if extended to Metlakatla. This project is under construction but needs funding for the segment between Annette Island and Ketchikan.

- **Reynolds Creek Hydro** – This project is officially in the construction phase. Good progress has been made in the creation of a project management team that is now updating costs and performing “value-engineering” tasks. It is anticipated that gap funding will be sought to cover construction-inflation costs that have increased since the project began.

- **Thayer Creek Hydro** – This hydro is the known solution to Angoon’s need for renewable energy development. The Forest Service signed the EIS Record of Decision for the Thayer Creek Hydroelectric Project in May 2009. Kootznoowoo has the rights to develop the project, and IPEC is the certificated and regulated electric provider for Angoon.

- **Whitman Lake Hydro** - Development of the Whitman Lake Hydroelectric Project is critical to Ketchikan’s continued economic sustainability as it provides the community with a source of reliable and reasonably priced hydroelectric power. The project will operate in cooperation with the Whitman Lake Hatchery (owned by Southern Southeast Regional Aquaculture Association).

For more information, contact the communities directly or Southeast Conference Energy Coordinator Robert Venables at energy@seconference.org.
SOUTHEAST ALASKA ELECTRICAL INTERTIE

Load Center

Existing Intertie

Proposed Intertie

Future Intertie

Existing Hydro

Future Hydro