**Agency: Commerce, Community and Economic Development** 

**Grants to Municipalities (AS 37.05.315)** 

Grant Recipient: Saxman Federal Tax ID: 3008E

Project Title: Project Type: Planning and Research

### Saxman - Mahoney Lake Hydroelectric Project Phase III Pre-Construction

State Funding Requested: \$1,000,000 House District: 33 / Q

Future Funding May Be Requested

### **Brief Project Description:**

The City of Saxman seeks \$1,000,000 State investment in the following pre-construction tasks for the 9.6MW Mahoney Lake Hydroelectric project (FERC License P-11393): A) FERC Final Design --Finalization and Design Report; B) Permit Renewal and Re-issuance of Environmental Assessment, if necessary; C) Cost Estimate Updated with new Permit Conditions. Funding for an identical scope of work has been requested via the Alaska Energy Authority Renewable Energy Round VI Grant Program.

### **Funding Plan:**

 Total Project Cost:
 \$51,000,000

 Funding Already Secured:
 (\$4,000,000)

 FY2014 State Funding Request:
 (\$1,000,000)

 Project Deficit:
 \$46,000,000

Funding Details:

During the 1990s, Cape Fox Corporation and Alaska Power & Telephone invested \$4,000,000 in pre-construction activities, resulting in issuance of a FERC license to the City of Saxman.

### **Detailed Project Description and Justification:**

### Description:

The City of Saxman seeks \$1,000,000 State investment in the following pre-construction tasks for the 9.6MW Mahoney Lake Hydroelectric project (FERC License P-11393):

\$400,000 FERC Final Design -- Finalization and Design Report

\$400,000 Permit Renewal and Re-issuance of Environmental Assessment, if needed

\$200,000 Cost Estimate Updated with new Permit Conditions

These activities are consistent with the Southeast Alaska Integrated Resource Plan's (SEIRP's) recommendations to allocate near-term investment to activities which reduce "unknowns" for potential future hydroelectric projects.

The Mahoney Lake Hydroelectric Project will provide ratepayers with 41,743,000 kWh of affordable, renewable electricity per year. The Mahoney Lake Partnership's current estimated busbar cost of power, assuming 50% State investment, is 7.3 cents per KWH. The project is capable of accommodating the Ketchikan / SEAPA region's growing load demands, while supporting economic growth and quality job creation in priority industries such as mining/ore processing, the marine industry

Page 1

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sector, shipbuilding & repair, tech-based industries, and more. Performance of the tasks described above will help pinpoint Mahoney Lake's power costs and construction costs with greater accuracy, providing essential information which can inform future power sales agreements and decision-making by local and regional leadership.

### Priority Ranking:

- --#1 City of Saxman Priority
- --#3 Overall priority identified on City of Ketchikan, Ketchikan Gateway Borough, City of Saxman "Joint Regional Priority List"
- --City of Saxman / Ketchikan Indian Community Joint Legislative Priority

### Community Support:

- --Heatherdale Resources (Niblack Mine Project)-- letter of support
- --SE Conference (regional ARDOR for Southeast Alaska) -- letter of support
- --Ketchikan Indian Community -- letter and resolution of support
- --Ketchikan Chamber of Commerce -- letter of support on behalf of Ketchikan's business community
- --Ketchikan Gateway Borough School District -- letter of support
- --Alaska Ship & Drydock -- letter of support
- --US Congressman Don Young -- letter of support
- --#1 community development priority on joint City of Saxman / Organized Village of Saxman CEDS List
- --Regional development priority on most recent Ketchikan Gateway Borough Comprehensive Economic Development Strategy (CEDS) list -- only hydroelectric project on list
- --Highest rated priority on community member poll conducted by Ketchikan Daily News in October of 2012

### Project Partnership Structure:

In September of 2011, the City of Saxman, Cape Fox Corporation (CFC), and Alaska Power & Telephone (AP&T) renewed a public-private partnership for development of the Mahoney Lake hydroelectric project. The FERC license for the project is issued to the City of Saxman. Cape Fox Corporation and Alaska Power & Telephone each have 50% ownership of "Ketchikan Electric Company, LLC" (AK Business License # 267588) -- a company formed to develop, own, and operate the Mahoney Lake project. In the mid-90s, CFC and AP&T invested approximately \$2 million each in the project, which resulted in issuance of a FERC license, and construction of roads to the site of the project's future powerhouse.

### Project Size:

The 9.6 MW Mahoney Lake project can provide 41,743,000 KWH (41.7 GWH) of power per annum. The project is ideally sized to support rapidly-emerging economic opportunities in priority industries such as mining/ore processing, the marine industry sector, shipbuilding & repair, tech-based industries, the visitor industry, and more. Approximately 17,900,000 KWH (17.9 GWH) of power is available between November and April as winter storage. AP&T's 2012 cost estimate for the project is \$46,000,000, +/- 20% -- one of southeast Alaska's most affordable options for new hydropower. (See attached SEIRP Tables 10-4 and 10-7 for "Refined Screened Hydro Project List" comparison.) The Mahoney Lake Partnership's current estimated busbar cost of power, assuming 50% State investment, is 7.3 cents per KWH.

### Mahoney Lake: Advanced Development Conditions:

Mahoney Lake's advanced state of development-readiness helps make the project a particularly attractive possibility for new, affordable hydroelectric power, capable of coming online in a timely manner within the next two years:

-- FERC License Received (FERC P-11393). Repeating this FERC licensing process for new hydro projects concepts

Page 2

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requires 9+ years, and comes with a risk of the license not being awarded.

- -- Work completed on the project to date helps to provide a greater degree of certainty regarding the project's cost than other, as-yet-unlicensed project concepts. (See SEIRP Tables 10-4 and 10-7 for comparison.)
- -- Access roads to project completed. Project is connected to the Ketchikan road system via Cape Fox Corporation's White River road system.
- -- Project is located approximately 5 miles from existing transmission lines (both Beaver Falls, and the Swan-Tyee Intertie lines)
- -- \$4,000,000 of private-sector investment in the project to date.
- -- Project is located 2 road miles from a former sortyard offering barge access, suitable for redevelopment in accordance with industry needs. (Example: ore processing facility for the Niblack mine)

### **Funding Options:**

The City of Saxman has submitted a request for \$1,000,000 in AEA Renewable Energy Round VI Grant funding for the scope of work described above. Saxman suggests State investment in the Mahoney Lake project either via direct capital appropriation, or AEA grant funding. Additional details of project and proposed \$1,000,000 investment can be found in the City of Saxman's application for AEA Renewable Energy Round VI Grant funding.

### **Project Benefits:**

- -- Assures sufficient power for growth of mining industry (letter of support from Heatherdale Resources / Niblack Mine)
- -- Reduced reliance upon heating oil and diesel generation of electricity
- -- Responds to regional business/population growth, and growing regional demand for affordable energy
- -- Responds to increased conversion to electric heat by residential, commercial, industrial, municipal, and non-profit sectors
- -- Reduces operating costs for resident businesses, supporting growth and expansion
- -- Cuts operating expenses for schools and non-profit organizations by supporting addition of or conversion to electric boilers, reducing regional tax burdens
- -- Supports construction of new community facilities requiring additional energy
- -- Assures availability of clean, renewable energy for resident ratepayers
- -- Affordable energy rates and abundant supply of renewable energy attracts new businesses, and supports new economic opportunities
- -- Keeps southeast Alaska competitive with peer/benchmark coastal communities competing to attract new businesses and jobs (ex: British Columbia, Puget Sound, San Diego, etc.)
- -- Supports new economic development and rapidly emerging opportunities in priority industries, such as Ketchikan-based ore processing, mining industry development, growth of the regional maritime industry sector, tech industries, and more
- -- Provides enhanced stability to region-wide system
- -- Could help provide electricity to cruise ships, lowering environmental impact of the visitor industry, and assuring compliance with federal environmental quality standards/regulations. (SEIRP forecasts 35,529 MWH annual demand by Ketchikan/Wrangell/Petersberg-area cruise ships)
- -- Reduces dependence on foreign oil

Growth in Regional Demand for Electricity:

For use by Co-chair Staff Only:

Contact Name: Becky Rooney Contact Number: 465-4858

Demand for electricity has been increasing substantially in the Ketchikan and SEAPA regions. The Southeast Alaska Integrated Resource Plan (SEIRP) states: "The number of [Ketchikan area] customers increased from 7,347 in 2008 to 7,418 in 2010. Most of the customer increases have been due to high growth in commercial and industrial activities. Unlike other areas in Alaska, Ketchikan has seen a recent spurt in commercial and industrial activities which has led to new customers coming into the area."

In January of 2012, Ketchikan Public Utilities experienced new peak demands for electricity, with peak demand exceeding the prior record by 13.7%, and total KWH delivered in a 24-hour period exceeding the prior record by 14.3%.

### Proximity to Opportunities

In the 1990s, the collapse of Southeast Alaska's robust forest products industry devastated southern southeast Alaska's economy. Currently, the region's future is looking brighter due to proximity to emerging opportunities.

Southern southeast Alaska has the potential to contribute substantially to new private sector economic activity, including: ore processing; mining; growth of advanced manufacturing (shipbuilding and repair); serving as a supply/support sector to Arctic offshore oil and gas fleets seeking ice-free winter moorage in communities with well-developed supply chains; State-wide growth of maritime activity; technology-based business; and more. Southeast Alaska must have infrastructure already in place to support these emerging opportunities. Southeast Alaska's infrastructure capacity will make the critical difference between these jobs remaining in Alaska, and jobs being exported to other states or nations with greater foresight.

As an example, Heatherdale Resources is currently advancing geological, engineering and environmental studies towards the future development of the Niblack Copper-Gold-Zinc-Silver project on Prince of Wales Island. Part of these investigations includes studies of the suitability of an ore-processing facility in the Ketchikan area. Recognizing that additional renewable energy would be critical to establishing a Ketchikan-based ore-processing facility, Heatherdale Resources has provided a letter of support for the \$1m Mahoney Lake pre-construction request. (See attachments.)

Affordable electricity is an area of common need shared by all business types. Because demand for electricity currently outpaces supply, it should be prioritized as an area requiring immanent investment; otherwise, southeast Alaska runs the risk of seeing jobs exported to communities and nations which are better able to respond to private sector demand.

### Social Benefits:

The Mahoney Lake Hydroelectric Project will produce enough energy to displace 3,105,000 gallons of diesel per annum. Over the initial term of its existing FERC license, the project would displace 142,830,000 gallons of diesel. The avoided cost of the diesel in nominal dollars is \$3 billion, and in 2011 dollars is \$530 million. Total carbon dioxide emissions avoided over the initial term of the existing FERC license would equal 1.8 million metric tons, valued at \$67.7 million in 2007 dollars. (Assumptions in attached documents.)

Additional info and graphics are provided as attachments to Saxman's CAPSIS request.

A greater level of detail regarding project activities is available via Saxman's Renewable Energy Round VI grant application, available via the Alaska Energy Authority.

### **Project Timeline:**

July 1st, 2013 - June 30th 2014.

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Contact Name: Becky Rooney Contact Number: 465-4858

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

Ketchikan Electric Company, LLC

**Grant Recipient Contact Information:** 

Name: Jason Custer

Title: Chairman, Mahoney Partnership

Address: Rt. 2, Box 1 -- Saxman

Ketchikan, Alaska 99901

Phone Number: (907)225-4166

Email: jasonryancuster@gmail.com

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

For use by Co-chair Staff Only:

Contact Name: Becky Rooney Contact Number: 465-4858

# HDIHEATHERDALE,

January 10, 2013

City of Saxman Rt. 2, Box 1 -- Saxman Ketchikan, AK 99901

ATTN: Jason Custer - Development Coordinator, City of Saxman

Dear Mr. Custer,

As you are likely aware, Heatherdale Resources Ltd. (Heatherdale) is currently advancing geological, engineering and environmental studies toward the future development of the Niblack Copper-Gold-Zinc-Silver Project (Niblack) on Prince of Wales Island. Part of these investigations includes studies of the suitability of an ore-processing facility separate from the mine location, yet still within the Ketchikan area.

It has recently come to our attention that the City of Saxman (Saxman) is requesting State investment in pre-construction activities to advance the 9.6 MW Mahoney Lake Hydroelectric Project. We understand that the Mahoney Lake Project would meaningfully enhance the Ketchikan area's supply of clean, renewable and low-cost hydroelectric power, and will become an important long-term asset for meeting local residential, commercial and industrial energy needs.

As an anticipated user of industrial power in southeast Alaska, Heatherdale would like to express support for Saxman in its efforts to secure funding for the Mahoney Lake Hydroelectric Project. It is our understanding funding would go towards 2014 activities that include Federal Energy Regulatory Commission (FERC) design finalization, permit renewal (if necessary), and a cost estimate update which would reflect any new permit conditions. Ensuring a reliable, long-term supply of low-cost, renewable and clean power for the Ketchikan region is a critical foundation for future economic and community development, and we applaud Saxman for its leadership in this realm.

Sincerely.

Patrick Smith
President & CEO

Table 10-4 Refined Screened Potential Hydro Project List

SEAPA         CATTON         CANDATA         CANDATA         CAPACATY         CANTILLIONS         S/RW         CANUAL           SEAPA         Annual - Kunk Lake         Wrangell         Storage         8.60         9.5+135.82         10,528-15,793         28,100           Cascade Creek         Petersburg         Storage         1.70         5.40-10.80         3,176-6,353         10,600           Lake Shabkum         Wrangell         Storage         1.00         3,40-91.00         3,500-91.00         40,000           Lake Shabkum         Metersburg         Storage         1.00         3,40-91.00         3,500-5,392         46,066           Babhaney Lake         Metersburg         Storage         20.00         4,50-91.00         3,200-9,309         4,000           Scenery Greek         Petersburg         Storage         20.00         4,50-91.26         4,229-6,439         1287-0           Sumrise Lake         Petersburg         Storage         7,50         110,11-135.17         1,661-12,000         3,009-5,414         13,50           Tyce New Hund Construction							
Ida-Kunk Lake         Wrangell         Storage         8.60         90.54-135.82         10.528-15,793           rande Creek         Petersburg         Storage         70.00         146.35-219.53         2,091-3,136           mell Lake         Ketchikan         Storage         1.70         5.40-10.80         3,176-6,353           ne Shelokun         Wrangell         Storage         10.00         39.00-91.00         39.00-91.00           hand Lake         Meyers Chuck         Storage         10.00         34.50-51.76         3.594-5,392           th Lake         Petersburg         Storage         20.00         128.96-19.80         3,200-9,180           innery Creek         Petersburg         Storage         20.00         128.96-19.48         4,299-6,449           innery Creek         Petersburg         Storage         20.00         128.98-193.48         4,299-6,449           innery Creek         Petersburg         Storage         30.00         128.98-193.48         4,299-6,449           innery Creek         Petersburg         Storage         7.50         110.11-135.17         14.68-6,240           ons Lake         Wrangell         Storage         1.40         36.69-85.4         26,143-61,000           inn River				CAPACITY	AFI	LCOST	ANNUAL
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Retersburg         Storage         70.00         146.35-219.53         2,091.3,136           Retchikan         Storage         1.70         5,40-10.80         3,176-6,353           Retchikan         Storage         10.00         39,00-91.00         3,900-9,100           Retchikan         Storage         10.00         34,50-51.76         3,594-5,392           Meyers Chuck         Storage         10.00         34,20-7,980         3,420-7,980           Petersburg         Storage         20.00         84,54-126.82         4,227-6,341           Petersburg         Storage         4.00         16,64-24.96         4,160-6,240           Wrangell         Storage         7.50         110,11-135.17         14,681-18,023           Metlakatla         Storage         3.50         12,63-18.95         3,609-5,414           Metlakatla         Storage         1.00         13,20-30.80         1,320-3,080           Metlakatla         Storage         1.00         13,20-30.80         1,320-3,080           Jack Storage         1.00         13,20-30.80         1,320-3,080           Jack Storage         10.0         13,20-30.80         1,320-3,080           Jack Storage         10.0         13,20-30.80         1,32	Anita - Kunk Lake	Wrangell	Storage	8.60	90.54-135.82	10,528-15,793	28,100
n         Ketchikan         Storage         1.70         5.40-10.80         3,176-6,353           n         Wrangell         Storage         10.00         39,00-91.00         3,900-9,100           s         Ketchikan         Storage         10.00         34.50-51.76         3,594-5,392           Meyers Chuck         Storage         10.00         34.50-51.76         3,594-5,392           Petersburg         Storage         20.00         84.54-12.682         4,227-6,341           Petersburg         Storage         30.00         128.98-193.48         4,299-6,449           Wrangell         Storage         7.50         110.11-135.17         14,681-18.023           Metlakatla         Storage         7.50         110.11-35.17         14,681-18.023           Metlakatla         Storage         1.40         36.60-85.4         26,143-61.000           dd Turbine         Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           1.320-3,080         1,320-3,080         1,320-3,080         1,320-3,080           1.48-222         9,250-13,875         2,023-3,02         9,250-13,875	Cascade Creek	Petersburg	Storage	70.00	146.35-219.53	2,091-3,136	202,300
n         Wrangell         Storage         10.00         39.00-91.00         3.900-91.00           s         Ketchikan         Storage         9.60         34.50-51.76         3.594-5.392           Meyers Chuck         Storage         10.00         34.20-7.980         3.420-7.980           Petersburg         Storage         20.00         84.54-12.682         4,227-6.341           Petersburg         Storage         30.00         128.98-193.48         4,299-6.449           Wrangell         Storage         4.00         16.64-24.96         4,160-6,240           Wrangell         Storage         7.50         110.11-135.17         14.681-18.023           Mediakatla         Storage         1.40         36.60-85.4         26.143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           10.01         13.20-30.80         1,320-3,080         1,320-3,080         1,320-3,080           10.02         10.32-154.81         8,601-12,901         1,48-2.22         9,250-13,875<	Connell Lake	Ketchikan	Storage	1.70	5.40-10.80	3,176-6,353	10,600
Retchikan         Storage         9.60         34.50-51.76         3,594-5,392           Meyers Chuck         Storage         10.00         34.20-79.80         3,420-7,980           Petersburg         Storage         20.00         84.54-126.82         4,227-6,341           Petersburg         Storage         30.00         128.98-193.48         4,299-6,449           Wrangell         Storage         4.00         16.64-24.96         4,160-6,240           Wrangell         Storage         3.50         110.11-135.17         14,681-18.023           rd Turbine         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           Wangell         Storage         27.70         117.04-175.56         4,225-6,338           wand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.40         5,49-8.23         13,725-20,575	Lake Shelokum	Wrangell	Storage	10.00	39.00-91.00	3,900-9,100	40,000
Meyers Chuck         Storage         10.00         34.20-79.80         3,420-79.80           Petersburg         Storage         20.00         84.54-126.82         4,227-6,341           Petersburg         Storage         30.00         128.98-193.48         4,299-6,449           Wrangell         Storage         4.00         16.64-24.96         4,160-6,240           Wrangell         Storage         7.50         110.1-135.17         14.681-18,023           rd Turbine         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           storage         Storage         12.00         103.21-154.81         8,601-12,901           rand Jim's Lake         Elfin Cove         Storage/Run-of-river         27.70         117.04-175.56         4,225-6,338           reake         Funakee Springs         Run-of-river         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.40         5,49-8.23         13,725-20,575	Mahoney Lake	Ketchikan	Storage	9.60	34.50-51.76	3,594-5,392	46,066
Petersburg         Storage         20.00         84.54-126.82         4.227-6.341           Petersburg         Storage         30.00         128.98-193.48         4.297-6.341           Wrangell         Storage         4.00         16.64-24.96         4.160-6.240           Wrangell         Storage         7.50         110.11-135.17         14,681-18,023           rd Turbine         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           wrangell         Storage         12.00         103.21-154.81         8,601-12,901           wrangell         Storage         27.70         117.04-175.56         4,225-6,338           wrangell         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           wand Jim's Lake         Elfin Cove         Storage/Run-of-river         0.40         5,49-8.23         13,725-20,575	Orchard Lake	Meyers Chuck	Storage	10.00	34.20-79.80	3,420-7,980	56,000
Creek         Petersburg         Storage         30.00         128.98-193.48         4,299-6,449           Wrangell         Storage         4.00         16.64-24.96         4,160-6,240           Wrangell         Storage         7.50         110.11-135.17         14,681-18,023           rd Turbine         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           sand Jim's Lake         Elfin Cove         Storage/Run-of-River         27.70         117.04-175.56         4,225-6,338           Tenakee Springs         Run-of-river         0.25         2.02-3.02         9,250-13,875           Total         Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Ruth Lake	Petersburg	Storage	20.00	84.54-126.82	4,227-6,341	70,700
Wrangell         Storage         4.00         16.64-24.96         4,160-6,240           Wrangell         Storage         7.50         110.11-135.17         14,681-18,023           Metlakatla         Storage         3.50         12.63-18.95         3,609-5,414           n Construction         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           rd Turbine         Wrangell         Storage         12.00         13.20-30.80         1,320-3,080           Wrangell         Storage         27.70         117.04-175.56         4,225-6,338           sand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.40         5,49-8.23         13,725-20,575	Scenery Creek	Petersburg	Storage	30.00	128.98-193.48	4,299-6,449	128,700
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Metlakatla         Storage         3.50         12.63-18.95         3,609-5,414           n Construction         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           Kand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Creek         Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Thoms Lake	Wrangell	Storage	7.50	110.11-135.17	14,681-18,023	24,200
n Construction         Wrangell         Storage         1.40         36.60-85.4         26,143-61,000           rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           sitka         Storage         27.70         117.04-175.56         4,225-6,338           sand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Creek         Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Triangle Lake	Metlakatla	Storage	3.50	12.63-18.95	3,609-5,414	13,100
rd Turbine         Wrangell         Storage         10.00         13.20-30.80         1,320-3,080           Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           Sitka         Storage         27.70         117.04-175.56         4,225-6,338           sand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Tyee New Dam Construction	Wrangell	Storage	1.40	36.60-85.4	26,143-61,000	9,100
Wrangell         Storage         12.00         103.21-154.81         8,601-12,901           sitka         Storage         27.70         117.04-175.56         4,225-6,338           sand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Creek         Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Tyee New Third Turbine	Wrangell	Storage	10.00	13.20-30.80	1,320-3,080	NE S
Sitka       Storage       27.70       117.04-175.56       4,225-6,338         c and Jim's Lake       Elfin Cove       Storage/Run-of-River       0.16       1.48-2.22       9,250-13,875         Tenakee Springs       Run-of-river       0.25       2.02-3.02       8,080-12,080         Creek       Hoonah       Run-of-river       0.40       5.49-8.23       13,725-20,575	Virginia Lake	Wrangell	Storage	12.00	103.21-154.81	8,601-12,901	43,800
Sitka         Storage         27.70         117.04-175.56         4,225-6,338           cand Jim's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Creek         Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Baranof Island						
K and Jim's Lake       Elfin Cove       Storage/Run-of-River       0.16       1.48-2.22       9,250-13,875         Tenakee Springs       Run-of-river       0.25       2.02-3.02       8,080-12,080         Creek       Hoonah       Run-of-river       0.40       5.49-8.23       13,725-20,575	Takatz Lake	Sitka	Storage	27.70	117.04-175.56	4,225-6,338	106,900
im's Lake         Elfin Cove         Storage/Run-of-River         0.16         1.48-2.22         9,250-13,875           Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Chichagof Island						
Tenakee Springs         Run-of-river         0.25         2.02-3.02         8,080-12,080           Hoonah         Run-of-river         0.40         5.49-8.23         13,725-20,575	Crooked Creek and Jim's Lake	Elfin Cove	Storage/Run-of-River	0.16	1.48-2.22	9,250-13,875	666
Hoonah Run-of-river 0.40 5.49-8.23 13,725-20,575	Indian River	Tenakee Springs	Run-of-river	0.25	2.02-3.02	8,080-12,080	916
	Water Supply Creek	Hoonah	Run-of-river	0.40	5.49-8.23	13,725-20,575	1,480

Table 10-7 Results of Economic and Risk Screening

PROJECT NAME	LOCATION	DEVELOPMENT LEVEL (1-5)	LICENSING/ PERMITTING (1,3,5)	CONSTRUCTABILITY/ RELIABILITY ACCESS (1.3.5)	BUSINESS AND FINANCIAL STRUCTURE (1-5)	HYDROLOGY (1.3)	OPERATING FLEXIBILITY (1.3.5)	PROJECT LINE MAINTENANCE (1.3.5)
SEAPA								
Anita - Kunk Lake	Wrangell	٠	S.	5	5	ur	sa	S
Cascade Creek	Petersburg	2	Q2	บา	4	₩	un.	yr.
Connell Lake	Ketchikan	۵	ы	-	S	-	US.	1
Eake Shelokum	Wrangell	un	QJ.	s	۵		s	yı.
Mahoney Lake	Ketchikan	-	-	-	4	2	× 1	-
Orchard Lake	Meyers Chuck	v	O1	Ç1	5	-	sa:	
Kuth Lake	Petersburg	۵	3	Ų,	4	U)	ы	us
Scenery Greek	Petersburg	٠	G.	UN	4	UT	5	Sr.
Sunrise Lake	Wrangell	ω	ίμα i	ω	SA.	4	sa :	3
Thoms Lake	Wrangell	da	u	w	uı	-	s	ω.
Triangle Lake	Metlakatla	ы	vi	з	*	_	vi	bu .
Tyee New Dam Construction	Wrangell	4	sı	LA	un.		-	-
Tyee New Third Turbine	Wrangell	4	SN.	Su .	sa:		Sri :	-
Virginia Lake	Wrangell		SI.	SI.	un:	_	VI.	LT.
Baranof Island								
Takatz Lake	Sitka	a	a	un	۵	-	_	VI.
Chichagof Island								
Crooked Creek and Jim's Lake	Ellin Cove	2	Ç#	and.	S.A.		ы	ţú
Indian River	Tenakee Springs	tui.	57	អា	4	-	VI.	ţ,z
Water Supply Greek	Homah	ы	5	ш.	<b>*</b>	1	UN.	
Juneau Area								
Lake Dorothy Expansion	Juneau	12	5	w	2	1	1	1
Sweetheart Lake	Juneau	2	ш	2/1	حد	-	-	un.
Upper Lynn Canal								
Connelly Lake	Haines	ы	IJ	ಬ	2	**	S	ثما
Schubee Lake	Skagway	L/I	لوا	UN .	2	5	ш	ж
Walker Lake	Chilkat Valley	۵	5	1	5	1	υı	يي
Wise Creek	Stronger	л	1				ŽE.	

Note: The risk-related ratings shown in this table are based upon the project-specific information available at this time and subject to change as projects move through the development process. These ratings are not address for the purpose of a competitive ordering of projects. Consequently, the AEA believes that this information should not be used, in its current form, to make any investment decisions.



Ketchikan Gateway Borough Office of the Mayor 1900 First Avenue, Suite 115 907-228-6605 Ketchikan, AK 99901

> City of Ketchikan Office of the Mayor 334 Front Street 907-228-5658 Ketchikan, AK 99901

City of Saxman Office of the Mayor Rt 2 Box 1 907-225-4166 Ketchikan, AK 99901

October 16, 2012

The Honorable Sean Parnell Governor of Alaska PO Box 110001 Juneau, AK 99811-0001

Dear Governor Parnell,

The "Community of Ketchikan" (comprised of the three Ketchikan area local governments) is pleased to present to you its FY 2014 Community Legislative Priority List. Ketchikan local governments worked together to compile the following priority list of improvement projects for the benefit of the Community of Ketchikan:

### Ketchikan Gateway Borough Priority Projects:

Ketchikan Performing Arts Center	\$1,800,000
Service Area Road Construction and Repair	\$4,090,150

### City of Ketchikan Priority Projects:

Ketchikan Medical Center	\$20,000,000
Off-System City Bridges and Repairs	\$12,750,000

### City of Saxman Priority Projects:

Mahoney Lake Hydroelectric Project	\$1,000,000
Saxman Community Center Parking Lot	\$557,740

### Community Priority Project from Alaska Industrial Development & Export Authority (AIDEA):

Ketchikan Shipyard Improvements	\$11,000,000
---------------------------------	--------------

The Community Legislative Priority List serves as the foundation of Ketchikan's attempt to move forward toward economic sustainability. The Ketchikan Gateway Borough, the City of Ketchikan, and City of Saxman request your favorable consideration of Ketchikan's priority projects for inclusion in your FY 2014 capital budget.

Sincerely,

Dave Niffer

Mayor, Ketchikan Gateway Borough

Lew Williams

Mayor, City of Ketchikan

Joe Williams, Jr.

Mayor, City of Saxman



September 19, 2012

Mayor, Harvey Shields City of Saxman Attn: Jason Custer Rt. 2, Box 1 -- Saxman Ketchikan, AK 99901

Re: Support for Mahoney Lake Hydro

Dear Mayor Harvey,

Southeast Conference is pleased to continue its support of the Mahoney Lake project. One of the key findings of the recent Southeast Alaska Integrated Resource Plan (SEIRP) planning process was that immediate investment be made in determining which storage hydros can best meet the region's growing load demands, while supporting economic growth and quality job creation in priority industries such as maritime, mining and ore processing.

Mahoney Lake's advanced state of development-readiness helps make this project a particularly attractive possibility for new, affordable hydroelectric power, capable of coming online in a timely manner.

Southeast Conference urges all potential funders to give the Mahoney Lake hydro project the fullest support possible as the next steps are taken to determine the project's final permitting and design and economic viability. Storage hydros offer the best opportunity to solve the energy needs of the region and will aid in our mission to develop strong economies, healthy communities and a quality environment in southeast Alaska. If you or any potential funding agency has any questions, feel free to contact me or Southeast Conference Energy Coordinator, Robert Venables.

Sincerely,

Shelly Wright
Executive Director

Whilly Wright

### **Greater Ketchikan Chamber of Commerce**



P.O. Box 5957, Ketchikan, Alaska 99901 Phone (907) 225-3184 Fax (907) 225-3187

E-mail: info@ketchikanchamber.com www.ketchikanchamber.com

To Whom it May Concern,

The purpose of this letter is to express the Greater Ketchikan Area Chamber of Commerce's support for development of the Mahoney Lake hydroelectric project in a manner which:

- a) Assures affordable electricity to Ketchikan residents and businesses.
- b) Supports Ketchikan's economic growth and development, attracts new businesses, and leads to creation of new jobs.
- c) Contributes to the Ketchikan region's overall economic health and sustainability.

Although Ketchikan's population has declined, demand for electricity in the region continues to grow. An increasing number of homeowners and businesses are using electric heating systems. New public facilities will create concurrent new needs for power. Major development activities with great economic potential for the region -- such as the continued expansion of Alaska Ship and Drydock, the possible construction of Alaska Class Ferries in Ketchikan, expansion of Ketchikan's maritime industry sector and future mining activities on Prince of Wales -- will create additional demand for electricity. The cost of burning diesel fuel during times of high demand cuts into businesses' bottom lines, and adds to families' living expenses.

Increased availability of affordable electricity will support the development of Ketchikan's economy, driving business growth, and making the region more attractive for new private sector investment. Surplus, affordable power will attract new jobs and businesses to the region.

The City of Saxman owns the FERC license for a 9.6 megawatt hydroelectric project at Mahoney Lake. The Mahoney Lake project is "low hanging fruit" capable of providing for Ketchikan's energy needs for years to come.

The Greater Ketchikan Chamber of Commerce support construction of the Mahoney Lake project before expiration of permits and licensing.

Respectfully

Kimberly Glisson, President

# Ketchikan Indian Community



**RESOLUTION:** 

KIC-12-48

TITLE:

KETCHIKAN INDIAN COMMUNITY SUPPORTS THE CITY OF SAXMAN'S REQUEST FOR STATE FISCAL YEAR 2014 CAPITAL APPROPRIATIONS

WHEREAS,

the Tribal Council of the Ketchikan Indian Corporation doing business as the Ketchikan Indian Community ("KIC or the "Tribe"), is a federally recognized Tribal government organized under a Constitution and Bylaws (collectively, the "Constitution") ratified on January 16, 1979, and previously organized under a Constitution and Bylaws ratified on January 27, 1940, in each instance pursuant to Section 16 of the Indian Reorganization Act ("IRA") of 1934 as amended; and

WHEREAS,

the KIC Tribal Council (the "Tribal Council") is the representative Tribal Government of the Tribe; and

WHEREAS,

the KIC Tribal Council is empowered under Article V, Section 1(c) of the KIC Constitution to "sell, convey, pledge, lease, exchange, transfer or otherwise dispose of all any part of its property...with the approval of the Tribal Council; and

WHEREAS, There is significant overlap between Ketchikan Indian Community membership and City of Saxman residents; and

WHEREAS, Ketchikan Indian Community and the City of Saxman share strong, longstanding cultural, traditional, and economic ties; and

WHEREAS, City of Saxman projects such as Mahoney Lake and Saxman Harbor respond to region-wide infrastructure needs, carry the potential to support and accelerate commercial / industrial growth, and would support creation of quality jobs in priority industries such as mining and the marine industry sector; and

WHEREAS, the Saxman Community Center is a vital hub for Alaska Native traditional and cultural events, and is utilized by residents of Ketchikan, Saxman, Metlakatla, and Prince of Wales; and

WHEREAS, the City of Saxman and Ketchikan Indian Community believe that a cooperative, coordinated, integrated approach to community, economic, and workforce development will result bring greater levels of sustainable benefit to both entities, as well as the region as a whole; and

# NOW, THEREFORE, IN CONSIDERATION OF THE ABOVE FACTS, IT IS RESOLVED BY THE TRIBAL COUNCIL OF THE KETCHIKAN INDIAN COMMUNITY AS FOLLOWS:

<u>Section 1.</u> Ketchikan Indian Community supports the City of Saxman's requests for State Fiscal Year 2014 Capital Appropriations investment, which include the following priorities:

- 1. Mahoney Lake Hydroelectric Project: Preconstruction -- \$1,000,000
- 2. Saxman Community Center Parking Lot: Phase I + II -- \$557,740
- 3. Saxman Public Works / Public Safety Upgrades -- \$176,020
- 4. New Raw Water Source -- \$996,500
- 5. Saxman Harbor: Phase I Construction -- \$1,400,000 (Funding needed circa 2015)

<u>Section 2.</u> In the event that investment via direct capital appropriation is not available for SFY2014, Ketchikan Indian Community requests that the State of Alaska consider funding the abovementioned projects via SFY2014 grant funding opportunities, including but not limited to the following programs:

- Alaska Energy Authority Renewable Energy Fund Round 6 Grants (Mahoney Lake)
- Alaska Energy Authority LED Streetlight Retrofit Program (Public Works / Public Safety Request)
- Alaska Energy Shelter Generator Grant Program (Public Works / Public Safety Request)

### CERTIFICATION

The foregoing reso meeting of the Ketc				
assembled this	10	t	h day	of of
Alaska 99901, by			FOR and	
AGAINST	· 10	0 0	12	
frene Dundas, Preside	nt Da	te		

Roll Call	Yes	No	Absent
DUNDAS			
HUDSON	X		V = 1 = 1 = 1 = 1 = 1 = 1 = 1
ARRIOLA	χ		
FRANK	Υ		
SANDERSON	χ		
CHURCHILL	χ		
LECORNU	χ		
REEVES	X		

ATTEST:

Andre LeCornu, Secretary

Date

10/9/12

October 9, 2011

Re: Industry support for the Mahoney Lake Hydroelectric project

To whom it may concern;

The purpose of this letter is to express Alaska Ship & Drydock Inc's (ASD) support for development of the Mahoney Lake Hydroelectric project in a manner which assures competitive priced energy to ratepayers in southeast Alaska. ASD operates the Ketchikan Shipyard under agreement with the Alaska Industrial Development and Export Authority (AIDEA) and we are engaged primarily in ship building and repair.

Alaska Ship and Drydock is working to develop Alaska's infrastructure and workforce, to support growth of Alaska's marine transportation, resource development, fisheries, and on/off-shore gas industries through shipbuilding and repair, a subsector of advance manufacturing. Ketchikan's shipyard attracts marine vessel fleet owners and operators (AMHS and NOAA) to the region, and enhances Ketchikan's potential as a base port for commercial vessels engaging in economic activity throughout Alaska. Growth in demand for shipyard supplies, material, and workforce supports expansion of local businesses, attracts new businesses, and creates new economic opportunities and diversity.

Along with other components of the region's maritime industry cluster, Alaska Ship & Drydock's facilities are expanding. With such growth comes concurrent, long-term demand for competitive priced energy, that can only be provided by hydroelectric projects like Mahoney Lake.

The Mahoney Lake project can provide our region's industries with a dependable, renewable source of hydropower, and help drive development of a more robust, sustainable economy.

Alaska Ship & Drydock urges you to do your utmost in supporting construction of this federally-licensed project at the earliest possible time.

Respectfully Submitted,

Dang Ward

Doug Ward

### DON YOUNG CONGRESSMAN FOR ALL ALASKA WASHINGTON OFFICE

2111 RAYBURN BUILDING TELEPHONE 202-225-5765



House of Representatives Mashington, DC 20515

Congress of the United States

COMMITTEE ON NATURAL RESOURCES

CHAIRMAN, SUBCOMMITTEE ON INDIAN AND ALASKA NATIVE AFFAIRS

COMMITTEE ON TRANSPORTATION & INFRASTRUCTURE

> REPUBLICAN POLICY COMMITTEE

December 8, 2011

Ms. Karen Rehfeld Director, Office of Management and Budget State of Alaska PO Box 110020 Juneau, AK 99811

Dear Ms. Rehfeld:

The City of Saxman recently updated me on the Mahoney Lake Hydropower project. The project is a partnership between the City of Saxman, Cape Fox Corporation and Alaska Power & Telephone. It is the City's number one priority on their FY2013 project list.

The recent completion of the Swan-Tyee Intertie has brought additional hydropower energy to Ketchikan and the surrounding area, but even with that project fully online, it is estimated that they will be fully subscribed by 2015 and unless additional hydropower projects are completed, will have to turn to the use of diesel to supplement the hydro to meet its energy needs.

The Mahoney Lake project is a 9.6mw project that has already received its Federal Energy Regulatory Commission (FERC) license and is in the process of seeking funds to complete construction. The project is needed to meet increasing regional demand for electricity, support projects such as the expansion of Alaska Ship and Drydock and Ketchikan General Hospital, and take advantage of evolving economic opportunities.

I understand that an Integrated Resource Plan (IRP) for Southeast is nearing completion and will include an assessment of regional energy concerns and issues, a regional transmission and inter-connection plan, and address individual community energy needs. I encourage your consideration of the Mahoney Lake Project as you develop your funding strategies for energy projects to bring access to affordable, reliable energy for electricity, heating and transportation to all Alaskans.

Sincerely.

DON YOUNG Congressman for all Alaska

DY:cm

cc: City of Saxman

Distributed by the Rictchikan Gateway Borough Cloub's Office

Fr ided for your Information
By Bill Williams

## LOT

# An Open Letter to Governor Sean Parnell, and Ketchikan's Local and Regional Leadership

August 15th, 2012

After my years of service in Alaska's House of Representatives, including time spent as Co-Chair of the House Finance Committee, there is one vital regional investment, as yet unrealized, which continues to weigh upon my mind more than any other; Saxman's 9.6 MW Mahoney Lake hydroelectric project.

In the 1990s, Cape Fox Corporation and Alaska Power & Telephone invested \$4 million in private sector funding to bring the Mahoney Lake hydro project to construction-ready status. A federal FERC license for the project was issued to the City of Saxman – a significant achievement which would now take a decade to repeat. Roads have been constructed to the site of the Mahoney Lake powerhouse. The project is located a short distance from existing transmission lines. Documents such as the Southeast Alaska Integrated Resource Plan (SEIRP) demonstrate that the Mahoney Lake project will provide more bang for the buck than other energy investments being discussed for our region. The size of the Mahoney Lake project – 9.6 megawatts – is ideal for supporting ore processing activities in Ketchikan. (Heatherdale Resources has indicated their milling facilities will require 8 megawatts of power.) The Mahoney Partnership has reported that with 50% State investment, the Mahoney Lake hydro project can provide power at a cost of 7.3 cents per kilowatt hour.

During my time in the State House of Representatives, I was urged by Ketchikan and other regional officials to prioritize construction of the Swan-Tyee Intertie ahead of the Mahoney Lake hydro project. Though a difficult decision, I conceded to pressure by Ketchikan officials, and supported the intertie over Mahoney Lake, with the expectation that investment in Mahoney would soon follow.

Had I known that Mahoney Lake would subsequently be overlooked in favor of less economical projects such as Whitman Lake, or projects such as raising the height of the Swan Lake dam, which does not add the additional generation capacity needed to support ore processing and economic growth, I would have advocated for investment in Mahoney Lake instead. I remain painfully disappointed that the State is yet to support the efforts of Cape Fox, Saxman, and AP&T by investing in the project. I am disappointed that our local leaders are yet to provide unified support for Mahoney Lake's construction, and are not yet promoting the project as a regional priority.

Mahoney Lake remains our region's most cost-effective option for new hydro generation. I cannot imagine ore processing and meaningful economic growth occurring in our community within the additional generation and storage which Mahoney Lake can provide. The private sector will not wait for years as we develop new energy resources—they will take their jobs elsewhere, to better prepared communities—perhaps even Canada. We need to develop additional generation capacity by constructing projects like

Mahoney Lake now, so that we are well positioned to support rapidly emerging opportunities.

I am heartened to see that the City of Saxman, Cape Fox Corporation, and Alaska Power & Telephone have renewed efforts to develop the Mahoney Lake project, and are building renewed support for State investment. I have noticed that much of the renewed support for Mahoney Lake is coming from the business community, which sees our region's desperate need for energy in their bottom lines. Our business community understands that the investment, expertise, and efficiency of the private sector (CFC and AP&T) can help produce regional energy projects which offer greater efficiency and "bang for the buck."

At a recent Ketchikan City Council meeting in August, the Chairman and Spokesperson for the Mahoney Lake partnership, Jason Custer, expressed the Mahoney Lake partnership's willingness to partner with KPU, SEAPA, and others to find a way to bring the project online as a regional resource. I would like to urge our elected officials in Ketchikan to give serious consideration to these suggestions, and begin to view and support Mahoney Lake's construction as a regional investment priority.

I also urge our State and regional leadership to diversify energy investments in Southeast Alaska by including the Mahoney Lake project within upcoming energy investments, either via investment of AEA grant funding, or direct capital appropriation. In a time of government spending cuts, it is more important than ever to partner with private sector businesses, and leverage the expertise and investment they can contribute to development of regional energy resources. Communities around the world are using effective public-private partnerships to rapidly develop the energy resources they need to strengthen their economies. We need to take a similar approach in Southeast Alaska, so that we can meet our own growing needs, and remain competitive.

I am sincerely disappointed that our elected leadership is not demonstrating a greater level of interest and support for the Mahoney Lake project. We owe it to our residents to find a way to bring this project online, so that they can benefit from affordable energy, new job creation, and the presence of ore processing jobs in Ketchikan. Let's start rallying behind the significant potential of this regional project; our community needs Mahoney Lake energy, and soon.

Sincerely,

Bill Williams

212-21kin

Note: The views and opinions expressed in this letter are those of Bill Williams and do not necessarily reflect the official policy or position of any business, government, or agency.



# Ketchikan Gateway Borough School District Robert Boyle, Superintendent 333 Schoenbar Road Ketchikan, AK 99901 phone 907-247-2109; fax 907-247-3820 boyler@kgbsd.org

September 26, 2011

To Whom It May Concern,

The purpose of this letter is to express my support, as Superintendent of the Ketchikan Gateway Borough School District, for development of the Mahoney Lake Hydroelectric Project in a manner which ensures Ketchikan residents can benefit from affordable, sustainable energy.

Although Ketchikan's population has declined, demand for electricity in the region grows steadily. As heating oil costs continue to rise, more homes, businesses, and community facilities are converting to electric heating systems.

The City of Saxman, Cape Fox Corporation, and Alaska Power & Telephone are partnering to meet this need through the development of a 9.6-megawatt hydroelectric project at Mahoney Lake. This project has the potential to meet the region's current and future energy needs in a sustainable manner, and to contribute to long-term economic growth and creation of legacy jobs.

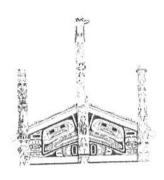
Affordable power provided by the project will also help to:

- Reduce School District operating costs, and contribute to a more affordable school system which provides our children with the highest quality of education possible.
- Increase family sustainability by reducing household energy expenses, and supporting economic development and job creation.
- Displace consumption of diesel fuel and reduce associated greenhouse gas emissions.
- Build a more robust economy, characterized by quality jobs which allow Ketchikan's youth to remain within the Ketchikan community as successful adults.

The Ketchikan Gateway Borough School District sees the Mahoney Lake Hydroelectric Project as a pathway to a more sustainable future, and supports construction of the project in a timely fashion.

Sincerely,

Robert Boyle, Superintendent



# Ketchikan Indian Community

Office of the General Manager 2960 Tongass Avenue — Ketchikan, AK 99901 (907) 228-9271 Phone (800) 308-9331 Fax

www.kictribe.org

July 20, 2012

Ms. Karen Rehfeld Director, Office of Management and Budget State of Alaska P.O. Box 10020 Juneau, Alaska 99811-0020

Dear Ms. Rehfeld,

The purpose of this letter is to express Ketchikan Indian Community's very strong support for the Mahoney Lake Hydroelectric Power Project. This project, a partnership between the City of Saxman, Cape Fox Corporation and Alaska Power & Telephone, merits serious funding consideration.

Even with the recent completion of the Swan Lake-Tyee Intertie and the anticipated completion of the Whitman Lake project, our area will be faced with hydro power shortages in 2015 forcing Ketchikan to use expensive diesel generators.

Providing a sustainable economic base since the closure of the pulp mill in 1996 has been a top priority for Ketchikan. The recent sale of Alaska Ship & Drydock to Vigor Industries and agreement between them and the Alaska Marine Highway virtually assures construction of replacement ferries here. Development of the Bokan and Niblack mining projects makes Ketchikan the obvious staging area; even possibly milling ore from those mines. These industries, providing family wage jobs, can't occur if Ketchikan doesn't provide reliable and affordable power for them.

Ketchikan Indian Community strongly encourages you to include the Mahoney Lake Hydroelectric Power Project in your funding requests in the next session of the legislature.

Sincerely,

Debbie Patton General Manager

CC: City of Saxman



ROUTE 2, BOX 2 - SAXMAN, KETCHIKAN, ALASKA 99901 · FAX: (907) 247-2504 · PHONE (907) 247-2502

### November 8, 2011

To Whom it May Concern,

The purpose of this letter is to express that the Organized Village of Saxman, Saxman I.R.A. supports for development of the Mahoney Lake hydroelectric project in a manner which:

a) Assures affordable electricity to Ketchikan residents and businesses.

 Supports Ketchikan's economic growth and development, attracts new businesses, and leads to creation of new jobs.

c) Contributes to the Ketchikan region's overall economic health and sustainability.

Although Ketchikan's population has declined, demand for electricity in the region continues to grow. An increasing number of homeowners and businesses are using electric heating systems. New public facilities will create concurrent new needs for power. Major development activities with great economic potential for the region, such as the continued expansion of Alaska Ship and Drydock, There is the possible construction for Alaska Class Ferries in Ketchikan, expansion of Ketchikan's maritime industry sector and future mining activities on Prince of Wales, which will create additional demand for electricity. The cost of burning diesel fuel during times of high demand cuts into businesses' bottom lines, and adds to families' living expenses.

Increased availability of affordable electricity will support the development of Ketchikan's economy, driving business growth, and making the region more attractive for new private sector investment. Surplus, affordable power will attract new jobs and businesses to the region.

The City of Saxman owns the FERC license for a 9.6 megawatt hydroelectric project at Mahoney Lake. The Mahoney Lake project is "low hanging fruit" capable of providing for Ketchikan's energy needs for years to come.

The Organized Village of Saxman, Saxman I.R.A. Council supports construction of the Mahoney Lake project before expiration of permits and licensing occurs.

Respectfully,

Lee Wallace, President

Cc: Saxman I.R.A. Council

### Resolution No. 09 - 2013 - 73

### A RESOLUTION OF THE SAXMAN CITY COUNCIL REQUESTING RENEWABLE ENERGY FUND GRANT INVESTMENT BY THE ALASKA ENERGY AUTHORITY FOR THE MAHONEY LAKE HYDROELECTRIC PROJECT.

WHEREAS, the Ketchikan and SEAPA (Ketchikan, Wrangell, Petersberg) regions are faced with rapidly increasing resident demand for electricity; and

WHEREAS, regional economic development and creation of new, quality jobs within priority industries such as mining/ore processing, shipbuilding and repair, advanced manufacturing, technology, and more depend upon a reliable source of affordably priced electricity; and

WHEREAS, Saxman, in partnership with Cape Fox Corporation and Alaska Power & Telephone, owns the FERC license for a 9.6 MW hydroelectric storage project at Upper Mahoney Lake; and

WHEREAS, the Ketchikan Chamber of Commerce, the Ketchikan Gateway Borough School District, the City of Saxman, the Organized Village of Saxman, Ketchikan Indian Community, and other regional entities have provided letters and resolutions of support for construction of the Mahoney Lake project; and

WHEREAS, Saxman seeks parity with peer communities such as Hydaburg, Ketchikan, Metlakatla, Wrangell, Petersburg, and others, which have received and benefitted from State investment in regional energy projects; and

WHEREAS, in addition to preparing the Mahoney Lake project for construction, the scope of work proposed in the "Mahoney Lake Phase III" request will help pinpoint construction and power costs with a greater degree of accuracy, which will help support development of responsible power sales agreements, help local leadership make better-informed decisions about the project, and assist private sector businesses in planning efforts; and

WHEREAS, the scope of work proposed in the "Mahoney Lake Phase III" request are consistent with investment recommendations of the Southeast Alaska Integrated Resource Plan (SEIRP), which prioritizes investment in predevelopment activities which help pinpoint construction and power costs for hydro projects with greater accuracy, leading to more informed regional planning; and

NOW THEREFORE BE IT RESOLVED BY THE CITY OF SAXMAN AS FOLLOWS:

<u>Section 1.</u> The City of Saxman hereby endorses and requests grant funding under the Alaska Energy Authority Renewable Energy Fund Round 6 program for the capital project identified below:

Mahoney Lake Phase III Request Amount -- \$1,000,000 Anticipated In-Kind -- \$100,000

DATED THIS 19th Day of Sept. 2012

ATTEST:

Harvey Shields, Mayor

Leona Haffner, City Administrator



September 16, 2012

Re: Renewable Energy Fund grant request

To Whom It May Concern:

Cape Fox Corporation recognizes that there is an increased demand for electricity from both citizens and businesses in our region of Southeast Alaska. To keep energy costs affordable for residents and to foster regional economic development and create jobs, additional sources of renewable electricity must be developed.

The City of Saxman, in partnership with Cape Fox Corporation and Alaska Power & Telephone, owns the FERC license for a 9.6 MW hydroelectric storage project at Upper Mahoney Lake.

In recent months, the level of local and regional support for construction of the Mahoney Lake project has increased greatly, and to prepare the Project for construction, funding of the *Mahoney Lake Phase III* request is needed. Phase III will help pinpoint construction and power costs with a greater degree of accuracy, and will support development of responsible power sales agreements, help local leadership make better-informed decisions about the project, and assist private sector businesses in planning efforts.

Cape Fox Corporation endorses and requests grant funding of \$1,000,000 under the Alaska Energy Authority Renewable Energy Fund Round 6 program on behalf of our Mahoney Lake partner, the City of Saxman.

Sincerely,

Michael E. Brown Chief Executive Officer

Cape Fox Corporation



### ALASKA POWER & TELEPHONE COMPANY

PORT TOWNSEND, WA 98368 (360) 385-1733 - (800) 982-0136 FAX (360) 385-5177

September 19, 2012

Re: Renewable Energy Fund grant request

To Whom It May Concern:

Alaska Power & Telephone Company (AP&T) recognizes that there is an increased demand for electricity from both citizens and businesses in our region reflected in the Southeast Alaska Integrated Resource Study (SEIRP). The SEIRP also highlights the current shortage of winter time energy storage in the region and advises that additional electrical load is expected to occur as customers now using oil for heating switch to electric heat. An adequate supply of affordable electric power is needed for the well being of the residents and to foster increased regional economic development that create jobs and can be achieved by further investment in hydropower.

The City of Saxman, in partnership with Cape Fox Corporation and Alaska Power & Telephone, owns the FERC license P-11393 for a 9.6 MW hydroelectric storage project at Upper Mahoney Lake and has a possessory interest in land rights and roads needed to begin construction.

AP&T and Cape Fox Corporation endorse and requests grant funding of \$1,000,000 under the Alaska Energy Authority Renewable Energy Fund Round 6 program on behalf of our Mahoney Lake partner, the City of Saxman.

By completing the FERC design approval process, it will provide assurance of a safe, fundamentally sound project. This will also allow project costs to be more accurately estimated, permits brought current and renewed. This new and updated information will allow the process of negotiating a power sales agreement with potential purchasers of the energy and capacity from the project to begin in earnest.

Sincerely

Robert S. Grimm CEO/President

Alaska Power & Telephone Co.

Alaska Power Company • Alaska Telephone Company • AP&T Wireless, Inc. • AP&T Long Distance, Inc. North Country Telephone, Inc. • Bettles Telephone, Inc. • Goat Lake Hydro, Inc. • BBL Hydro, Inc.

### CERTIFICATE OF CORPORATE RESOLUTION

The undersigned Secretary of Alaska Power & Telephone Company (the Corporation) hereby certifies that the following resolution was duly adopted by the board of directors of the Corporation at its annual meeting on May 17, 2001, and that such resolution has not been modified or rescinded as of the date hereof:

That the president, each vice president, or any one of them, or their designee is hereby authorized to execute and deliver: (i) routine contracts and other routine documents related thereto on behalf of AP&T that arise in the ordinary course of its business that involve the sale or purchase of goods, or the leasing of equipment, real property or other fixed assets pursuant to operating leases; (ii) governmental permit and grant applications and other documents relating to the securing, renewing, and amending of such permits and grants as deemed necessary or desirable for the routine operation of the affairs of AP&T; or (iii) other documents involving routine day-to-day matters arising in the ordinary course and operation of the business of AP&T and its subsidiaries.

WITNESS my hand and seal of the corporation, this 12th day of September, 2012.

The state of the s

Stan Selmer
Corporate Secretary

Date: 9-12-12

# Saxman 2012 Comprehensive Economic Development Strategy List

**UPDATE 4/16/2012** 

City of Saxman  Materfront Development  Or7-225-4166  S20m-\$25m  Current: Planning / design funded (Total and in progress. Future: Construction Construction Indiging for breakwater St. (Total 2.3, 2.4, 2.5, 2.6  1.0. Harbor Planning / Design  " Cost) Cost)  Current: State funding awarded to replace warehouse (SF7013). Future: Construct paved improvements to yard and work with private industry to expand improvements to yard and work with private industry to expand infrastructure to meet port customer is islands ferry. Future: Work with Rainforest Islands ferry to support service to POW / Warmfell / Pretersburg and expand to Hyder.  Explore opportunities for AMMs, IFA.  1.1. 1.2, 2.1, 2.3, 1.c. Establish Ferry Service  TBD expand service (ex. Metalskatla)  2.6. Tourism Development  " TBD  Expand service (ex. Metalskatla)  Future: Contract for planning service (ex. Wetalskatla)  Future: Contract for planning services or develop partment futures in the programment of the partment of partment in the partment of the partment	Con	Economic Community Development Development	Strategy	Project	Contact	Estimated Cost	Project Status	Funding Source
Current: Planning / design funded (Total and in progress. Future: Construction funding for breakwater St. (Total and in progress. Future: Construction funding for breakwater St. (Total Construction funding for breakwater St. (Total Construction funding for breakwater St. (Total Construction funding by breakfold to replace warehouse (SFY2013).  Future: Construct paved improvements to yard and work with private industry to expand infrastructure to meet port customer St. (TBD Infr				Waterfront Development	City of Saxman 907-225-4166			
Current: State funding awarded to replace warehouse (SFY2013). Future: Construct paved improvements to yard and work with private industry to expand infrastructure to meet port customer S infrastructure to meet port customer S infrastructure to meet port customer S islands Ferry. Future: Work with Rainforest Islands Ferry Enture: Work with Rainforest Islands Ferry Enture: Work with Rainforest Islands Ferry Enture: Work with Rainforest Islands Ferry to support service to POW / Wrangell / Petersburg and expand to Hyder.  Tourism Development  Taourism Development  S.a. Tourism Development  Moster Plan  Moster Plan  Moster Plan  " \$550,000   KGB Planning Department			1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6	1.a. Harbor Planning / Design	Ξ	\$25m uction	Current: Planning / design funded and in progress. Future: Construction funding for breakwater / dredging (2015-2016?)	
Current: Signed lease with Rainforest Islands Ferry. Future: Work with Rainforest Islands Ferry to support service to Pow / Wrangell / Petersburg and expand to Hyder. Explore opportunities for AMHS, IFA, etc. to share Saxman Terminal and expand service (ex: Metlakatla)  Tourism Development  2.a. Tourism Development  Services or develop partnership with services or develop with services or develop partnership with s			1.1, 1.2, 2.1, 2.3, 2.4, 2.5, 2.6	Seaport Redevelopment		TBD	Current: State funding awarded to replace warehouse (SFY2013). Future: Construct paved improvements to yard and work with private industry to expand infrastructure to meet port customer needs.	r State, Federal, Local, Private.
Tourism Development  2.a. Tourism Development  Master Plan  " \$50,000 KGB Planning Department			1.1, 1.2, 2.1, 2.3,		=	TBD	Current: Signed lease with Rainfores Islands Ferry. Future: Work with Rainforest Islands Ferry to support service to POW / Wrangell / Petersburg and expand to Hyder. Explore opportunities for AMHS, IFA etc. to share Saxman Terminal and expand service (ex: Metlakatla)	st A, State, Federal, Local, Private
2.a. Tourism Development "\$50,000 KGB Planning Department \$50,000 KGB Planning Department	-		7.0	Tourism Development				
	7		11 12 21.2.3		=	00′05\$	Future: Contract for planning services or develop partnership wit KGB Planning Department	

	1.1, 1.2, 2.1, 2.3	2.b. Totem Row Park Improvements		Current recepta \$100,000 lighting	Current: Restroom and trash receptacles. Future: Benches and lighting	State, Federal, Local
m		Business Development				
	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6	3.a. Market community investment opportunities	-	TBD	Develop promotional materials. Collaborate with Shipyard / Borough / Ketchikan Chamber of Commerce / Ketchikan Marine Industry Council / Prince Rupert, etc.	h / State, Federal, Local, Private.
	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6	3.b. Collaborate with private industry to develop new economic opportunities		TBD .	TBD	Private, Local, State, Federal.
	1.1, 1.2, 2.1, 2.2, 2.3, 2.3, 2.4, 2.5, 2.6	3.c. Plan/implement small projects (ex: Saxman Arts Market)	=	TBD	TBD	Private, Local, State, Federal.
	1.1, 1.2, 2.1, 2.2, 2.3, 2.3, 2.4, 2.5, 2.6	3.d. Partner in regional workforce development / training initiatives	-	TBD	Ex: Shipyard, Mining, Chamber of Commerce, Ketchikan Marine Industry Council, etc.	Private, Local, State, Federal, Philanthropic.
	1.1, 1.2, 2.1, 2.2, 1, 2.3, 2.4, 2.5, 2.6	Mahoney Lake Hydroelectric Project	=	Current: 1 reestablis constructi \$1m in rel	Current: Public-private partnership reestablished. Seeking \$46m for construction. (April 2012 Estimate.) \$1m in remaining pre-construction activities.	Private, State, Federal, Local
	2 1.1, 1.2	Organized Village of Saxman: Tribal Offices	Organized Village of Saxman 907-247-2502	TBD	Planning/Design	State, Federal, Local
	3 1.1, 1.2, 2.3	Saxman Community Center	Oity of Saxman 907-225-4166			
	1.1, 1.2, 2.3	3.a. Pave Parking Areas		\$600,000	Pre-planning activities and paving concept completed. Seeking \$600,000 construction funding.	State, Federal, Local.
	1.2	1.2 3.b. Youth Programming	=	TBD	Ongoing. Develop long-term Local, relationship with non-profits for Philantt sustainable delivery of programming. Private	State, Federal, Local, Philanthropic,
					0	

	Community Water / Sewer				
4	Improvements				
					State, Federal,
1.1. 1.2. 2.1	4.a. New Raw Water Source	=	\$1,993,000	\$1,993,000 Engineering/design 75% complete	Local
					State, Federal,
1.1, 1.2	4.b. Residential Water Meters	=	\$62,000	\$62,000 Seeking funding for implementation Local	Local
	4.c. Water/Sewer Tie-in to			Future: Conduct planning with	State, Federal,
1.1, 1.2, 2.1	Neighboring Service Areas	ı	TBD	Ketchikan Gateway Borough	Local

# 2011 KETCHIKAN GATEWAY BOROUGH CEDS PROJECT LIST

( + in )	Project Status Potential Funding	Sources		1 10 1 17	rederal, state			Federal, State.	Local			Foderal State	Local				Federal, State,	Local			Federal, State,	Local		Federal, State.	Local		Federal, State,	Local		
	Project Status				1116	Dry Dock 2	completed					Concentual			19												Planning			1
	Estimated	CUST		¢70 m /	/ 111 0 / 4	ı (13.7	m KLL)	\$5 mil				\$60,000															\$440,000			
(	Contact			Alacka Chin 8.	מ לוווס מונה מווים	Drydock, Inc.	907-225-7199 m KLL)	Ketchikan	Gateway	Borough 907-	228-6625	Greater	Ketchikan	Chamber of	Commerce 907	225-3184	Ketchikan	Gateway	Borough 907-	228-6625	First City	Players 907-	225-4792				Greater	Ketchikan	Chamber of	Commerce
	rroject	FCONOMIC	DEVELOPMENT	Ketchikan Shinyard	n in (d	Expansion and	Improvement	Commercial Fishing Vessel	Fleet infrastructure in	Ketchikan:	Drive down dock	Business Expansion and	Retention Program				Airport Dock	move seafood south	rebuild & expand dock		Performing Arts Center			Mariculture	Project needs to be	identified	Maritime & Marine	Technoloy Consortium	Work Plan	
Chuotom	i i i oai oii ategy			1&6				1&4				1&8	in see				1,3&4				1&3	20-112-1-1		4			1&6		andrews.	
Tribal	HIDAI													A CONTRACTOR OF THE CONTRACTOR																
Driority	6110111	ewav	Î _			Wp340		Y-1-10																						
Community		Ketchikan Gateway	Borough																											

# 2011 KETCHIKAN GATEWAY BOROUGH CEDS PROJECT LIST

		VALUE SIN			П							
Federal, Local	Private, State,	Federal, Local		Federal, State,	Local	Federal, State,	Local	Federal, State	Federal, State,	Local	Federal, State,	10001
a.) Planning, b.) Construction c.) Construction	Construction											
\$350,000 Harbor Planning, \$1,000,000 Seaport Renovation, Ferry TBD	TBD											
City of Saxman \$350,000 907-225-4166 Harbor Planning, \$1,000,00 Seaport Renovation Ferry TBI	City of Saxman	907-225-4167				7						
I.1.S., Waterfront Development: I.1.T., a.) Harbor Planning, b.) II.1.D., Seaport Renovation, c.) II.5.A. Ferry Terminal	Mahoney Lake	Hydroelectric Project		Mining	)	KIC Hatchery		White River Access	Peace Health Medical Center		Biomass Boilers	
1.1.S., 1.1.T., 11.1.D., 11.5.A.	1.1.L.	I.1.M.,	1.1.R.II.5.	7		1		8	-		2	1
		P	_									

### — EDITORIAL —

# New priorities

While the legislative priority list looks the same, it is different. Ketchikan's top capital projects remain Ketchikan International Airport, Ketchikan Medical Center, Ketchikan Shipyard and City of Ketchikan bridges — you see why they're called Ketchikan projects.

But Saxman, which listed its seaport and harbor as its priorities and had them included in the top six on the list, has changed its top priority. The City of Saxman has elevated the Mahoney Lake Hydroelectric Project to its No. 1 spot.

Ît's a \$50 million project. Once built, it would generate 46 million kilowatt hours of electricity per year. Four million dollars

has been spent to date; another \$46 million is needed.

The completed project wouldn't generate only electricity well into the future, but during construction it would enhance the economic well-being of Saxman and Ketchikan. Jobs would be provided; people would find work; they'd pay living expenses, some of which would support the local government.

Saxman, along with Cape Fox Corp and Alaska Power & Telephone, established a public-private partnership to advance the project. It would be operated by Ketchikan Electric Company, an

AP&T and Cape Fox Corp joint venture.

Ketchikan's appetite for power has been unquenchable. It built the Swan Lake/Tyee Lake Hydroelectric Project, and about the time it went on line, predictions were it wouldn't provide enough power beyond 2014. The Whitman Lake Hydroelectric Project is being undertaken by Ketchikan, but its power also is expected to stave off a power thirst for only a short time.

Mahoney Lake is necessary. Power demand doesn't decline in a growing and technologically advancing community like Ketchikan. Looking at the full list of projects on the Legislative

Priority List is a testament to that.

The airport, the hospital and the shipyard all will be requiring increasing power as they expand. The shipyard is building a new assembly hall, which is scheduled to open this year. It also has big projects, including construction of Alaska Class ferries, on its schedule in the near future.

The City of Ketchikan is set to build an addition to the hospital

in order to update surgical units.

Airport improvements are planned, including lighting and air-

port-ferry moorage.

Ketchikan got its start with mining. Mining is returning, with exploration for rare earth elements and copper, gold, silver and zinc in the Ketchikan and Prince of Wales Island area. Millions of dollars are being invested.

Not only industry and business, but individual households re-

quire power they can afford.

The Mahoney project, once completed, could provide power to Kake, Metlakatla, Petersburg and Wrangell in addition to Ketchikan and Saxman. It eventually would become a link in the Southeast Alaska Hydroelectric Intertie.

This is a project growing in importance as months pass. Just since early winter, it has overtaken Saxman's two top projects as the one most needed. It's likely only a matter of a few months before it not only ranks higher on Saxman's list, but on Ketchikan's and Alaska's as well.



# Alaska can ben

By JOHNNY ELLIS

You may have seen a lot of news lately about the rising cost of Alaska's corrections system. We have to face the facts: Prisons are incredibly expensive, regardless of where or how they are built. It's time for us to start focusing on why we have had to build a new prison in the first place.

Alaska is not alone in its prison cost woes. When Texas Republican Rep. Jerry Madden was appointed Chair of the Texas Department of Corrections budget committee, the very conservative Speaker of the Texas House sat him down and said: "Don't build new prisons; they cost too much." Those eight words shaped Madden's work on the Texas corrections budget. At the Smart Justice Summit I hosted in early October, Rep. Madden told the bipartisan panel that since he heard those eight words. Texas hasn't built

ally — driven rate at which prison after re partment of C 66 percent of a prison after re percentage arc crimes. Most r their probatio stance abuse cause of those

In 2008 Texa skyrocketing o ation after releashuse and techtackled this produced tackled this produced taxpay most cost-effective for reducing the prison. Here

10/19/2012

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# KETCHIKAN DAILY NEWS

501 Dock St./P.O. Box 7900 • Ketchikan, Alaska 99901 (907) 225-3157 • Fax (907) 225-1096 • news@ketchikandailynews.com

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### Poll Results

1	What should be Ketchikan's top capital budget priority for the upcoming state legislative session?
-	Ketchikan Medical Center surgical unit 8.66 % (38)
<u>ıt</u>	Off-system bridges repairs 1.82 % (8)
st	Ketchikan Performing Arts Center 14.35 % (63)
2	Service-area road building repair 8.43 % (37)
	Mahoney Lake hydroelectric project 56.26 % (247)
ĭ	Saxman Community Center parking lot 0.23 % (1)
	Ketchikan Shipyard improvement 10.25 % (45)

#1 Saxman Priority
#3 Joint Regional Priority
(Ketchikan, Ketchikan Borough, Saxman)

### Task 1 -- \$400,000 Permitting Activities

Examine existing permits, and determine whether permits require reissuance or update.

### Task 2 -- \$400,000 FERC Final Design

A final design was submitted to FERC just prior to a stay being placed on Mahoney Lake's license. The stay went into effect before FERC could complete a review and offer commentary on the design. Saxman will submit a new final design to FERC, which will reflect any new permitting conditions.

### Task 3 -- \$200,000 Cost Estimate Update

Cost estimate will be updated based upon the outcomes of tasks 1 and 2. Updates will be performed with assistance from experienced construction contractors (NOT just by an engineering firm), to provide the greatest degree of accuracy possible.

### **YOUR QUESTIONS:**

"What will it cost to build this project?"

"What will the power sales agreement look like?" "What will power cost?"

# Saxman's

Strin Request for Mohoney

Responding to your questions, and informing better decision-making by local leadership.

### **OUTCOMES:**

- -- Most accurate understanding of construction cost, and cost of power
  -- Information vital to developing power sales agreements
- -- Information which is essential to helping leadership understand if, how, and when to bring the Mahoney Lake project online as a regional asset
- -- ANSWERS TO YOUR QUESTIONS, BACKED BY THE INVESTMENT AND INTEGRITY OF THE ALASKA ENERGY AUTHORITY

<u>Contact:</u> Jason Custer, Chairman – 907-225-4166 x 13 / jasonryancuster@gmail.com

# #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction



### **Applicant:**

City of Saxman, Alaska,

in partnership with Alaska Power & Telephone Company and Cape Fox Corporation (d.b.a. Ketchikan Electric Company, LLC: State of Alaska Business License #267588)

### **Contact:**

Jason Custer, Chairman - Mahoney Lake Hydroeletric Development Partnership

Phone: 907-225-4166 x 13

Fax: 907-225-6450

Email: <a href="mailto:saxmangrants@kpunet.net">saxmangrants@kpunet.net</a> or <a href="mailto:jasonryancuster@gmail.com">jasonryancuster@gmail.com</a>

### Municipal Tax Exempt #: 3008E

### City of Saxman: Mayor Joe Williams, Jr. Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

### **Project Summary:**

• Request Amount: \$1,000,000

• Request Source: Direct Capital Appropriation or AEA Renewable Energy Round VI Grant

• One Time Request

• Expenditures to Date: \$4,000,000 (AP&T and Cape Fox Corporation)

Completion Date: June 30<sup>th</sup>, 2014

 Description: The City of Saxman seeks \$1,000,000 State investment in the following preconstruction tasks for the 9.6MW Mahoney Lake Hydroelectric project (FERC License P-11393):

\$400,000	FERC Final Design Finalization and Design Report
\$400,000	Permit Renewal and Re-issuance of Environmental Assessment, if needed
\$200,000	Cost Estimate Updated with new Permit Conditions

These activities are consistent with the Southeast Alaska Integrated Resource Plan's (SEIRP's) recommendations to allocate near-term investment to activities which reduce "unknowns" for potential future hydroelectric projects.

The Mahoney Lake Hydroelectric Project will provide ratepayers with 41,743,000 kWh of affordable, renewable electricity per year. The Mahoney Lake Partnership's current estimated busbar cost of power, assuming 50% State investment, is 7.3 cents per KWH. The project is capable of accommodating the Ketchikan / SEAPA region's growing load demands, while supporting economic growth and quality job creation in priority industries such as mining/ore processing, the marine industry sector, shipbuilding & repair, tech-based industries, and more. Performance of the tasks described above will help pinpoint Mahoney Lake's power costs and construction costs with greater accuracy, providing essential information which can inform future power sales agreements and decision-making by local and regional leadership.

### **Priority Ranking:**

- #1 City of Saxman Priority
- #3 Overall priority identified on City of Ketchikan, Ketchikan Gateway Borough, City of Saxman "Joint Regional Priority List"
- City of Saxman / Ketchikan Indian Community Joint Legislative Priority

Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

### **Community Support:**

- SE Conference (regional ARDOR for Southeast Alaska) letter of support
- Ketchikan Indian Community letter and resolution of support
- Ketchikan Chamber of Commerce letter of support on behalf of Ketchikan's business community
- Ketchikan Gateway Borough School District letter of support
- Alaska Ship & Drydock letter of support
- US Congressman Don Young letter of support
- #1 community development priority on joint City of Saxman / Organized Village of Saxman CEDS List
- Regional development priority on most recent Ketchikan Gateway Borough Comprehensive Economic Development Strategy (CEDS) list only hydroelectric project on list
- Highest rated priority on community member poll conducted by Ketchikan Daily News in October of 2012

### **Project Attributes**

**Project Partnership Structure** – In September of 2011, the City of Saxman, Cape Fox Corporation (CFC), and Alaska Power & Telephone (AP&T) renewed a public-private partnership for development of the Mahoney Lake hydroelectric project. The FERC license for the project is issued to the City of Saxman. Cape Fox Corporation and Alaska Power & Telephone each have 50% ownership of "Ketchikan Electric Company, LLC" (AK Business License # 267588) – a company formed to develop, own, and operate the Mahoney Lake project. In the mid-90s, CFC and AP&T invested approximately \$2 million each in the project, which resulted in issuance of a FERC license, and construction of roads to the site of the project's future powerhouse.

**Project Size** – The 9.6 MW Mahoney Lake project can provide 41,743,000 KWH (41.7 GWH) of power per annum. The project is ideally sized to support rapidly-emerging economic opportunities in priority industries such as mining/ore processing, the marine industry sector, shipbuilding & repair, tech-based industries, the visitor industry, and more. Approximately 17,900,000 KWH (17.9 GWH) of power is available between November and April as winter storage. AP&T's 2012 cost estimate for the project is \$46,000,000, +/- 20% -- one of southeast Alaska's most affordable options for new hydropower. (**See attached SEIRP Tables 10-4 and 10-7 for "Refined Screened Hydro Project List" comparison.)** The Mahoney Lake Partnership's current estimated busbar cost of power, assuming 50% State investment, is 7.3 cents per KWH.

**Current State of License / Permit Renewal & Reissuance --** A stay was placed on the Mahoney Lake project's FERC license for the purpose of assuring completion of the Swan-Tyee Intertie. The stay is still in effect, until request of the license holder. Because existing permits are stale-dated, Mahoney Lake's permits require renewal – and in the case of USFS permits – may

Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

require reissuance. The City of Saxman requests a \$1,000,000 appropriation to complete the following pre-construction tasks:

- FERC Final Design Finalization and Design Report -- \$400,000
- Permit Renewal and Re-issuance of EA, if needed -- \$400,000
- Cost Estimate Updated with new Permit Conditions -- \$200,000

The terms and conditions assumed in this request are based upon the outcome of previous permitting. While we hope that there are not new issues or permit conditions which arise from the renewal and reissuance process, the partnership recognizes the importance of completing remaining permitting-related activities as soon as possible, so that the Mahoney Lake hydroelectric project can be developed in a timely fashion in synch with rapidly-emerging commercial/industrial opportunities.

**Mahoney Lake: Advanced Development Conditions** -- Mahoney Lake's advanced state of development-readiness helps make the project a particularly attractive possibility for new, affordable hydroelectric power, capable of coming online in a timely manner within the next two years:

- FERC License Received (FERC P-11393). Repeating this FERC licensing process for new hydro projects concepts requires 9+ years, and comes with a risk of the license not being awarded. (For perspective, the City of Ketchikan reported in October of 2012 that it took 12 years to receive a FERC license for the Whitman Lake hydro project funded by the legislature in SFY2012.)
- Work completed on the project to date helps to provide a greater degree of certainty regarding the project's cost than other, as-yet-unlicensed project concepts. (See SEIRP Tables 10-4 and 10-7 for comparison.)
- Access roads to project completed. Project is connected to the Ketchikan road system via Cape Fox Corporation's White River road system.
- Project is located approximately 5 miles from existing transmission lines (both Beaver Falls, and the Swan-Tyee Intertie lines)
- \$4,000,000 of private-sector investment in the project to date.
- Project is located 2 road miles from a former sortyard offering barge access, suitable for redevelopment in accordance with industry needs.

### Work Completed to Date --

The following documents can be provided to the State Legislature or AEA to demonstrate that considerable reconnaissance, feasibility, design, and permitting work has been completed:

- R.W. Beck and Associates, Inc. June, 1977 Appraisal Report Swan Lake, Lake Grace, and Mahoney Lake Hydroelectric Projects.
- R.W. Beck and Associates, Inc. March 1986 Appraisal Study 1985 Update Future Hydropower Resources Ketchikan, Petersburg, Wrangell, and Quartz Hill.

Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

- HDR Engineering, Inc. 1993 Mahoney Lake Hydroelectric Project Feasibility Report
- City of Saxman and HDR Engineering, Inc. May 1996 Application for License for Major Unconstructed Project Mahoney Lake Hydroelectric Project (3 volumes).
- City of Saxman and HDR Engineering, Inc. May 1996 *Preliminary Supporting Design Report Mahoney Lake Hydroelectric Project* (3 volumes).
- Robert B. Forbes Sept. 1998 Geotechnical Reconnaissance of the Mahoney Lake Project Area, Ketchikan District, Alaska
- Alaska Power & Telephone Co. July, 2001 Mahoney Lake Hydroelectric Project, FERC Project No. 11393 Technical Specifications for FERC Review Per Article 303
- Alaska Power & Telephone Co. July, 2001 Mahoney Lake Hydroelectric Project, FERC Project No. 11393 Supporting Design Report for FERC Review Per Article 303
- Alaska Power & Telephone Co. July, 2001 Mahoney Lake Hydroelectric Project, Ketchikan, Alaska General Construction, Contract No. 1 (design drawings)

Saxman is aware of other studies of the Mahoney Lake site by the Corps of Engineers, but does not have documentation.

**Funding Options** -- The City of Saxman has submitted a request for \$1,000,000 in AEA Renewable Energy Round VI Grant funding for the scope of work described above. Saxman suggests State investment in the Mahoney Lake project either via direct capital appropriation, or AEA grant funding. Additional details of project and proposed \$1,000,000 investment can be found in the City of Saxman's application for AEA Renewable Energy Round VI Grant funding.

### **Project Benefits**

- Reduced reliance upon heating oil and diesel generation of electricity
- Responds to regional business/population growth, and growing regional demand for affordable energy
- Responds to increased conversion to electric heat by residential, commercial, industrial, municipal, and non-profit sectors
- Reduces operating costs for resident businesses, supporting growth and expansion
- Cuts operating expenses for schools and non-profit organizations by supporting addition of or conversion to electric boilers, reducing regional tax burdens
- Supports construction of new community facilities requiring additional energy
- Assures availability of clean, renewable energy for resident ratepayers
- Affordable energy rates and abundant supply of renewable energy attracts new businesses, and supports new economic opportunities
- Keeps southeast Alaska competitive with peer/benchmark coastal communities competing to attract new businesses and jobs (ex: British Columbia, Puget Sound, San Diego, etc.)
- Supports new economic development and rapidly emerging opportunities in priority industries, such as Ketchikan-based ore processing, mining industry development, growth of the regional maritime industry sector, tech industries, and more
- Provides enhanced stability to region-wide system

### **City of Saxman: Mayor Joe Williams, Jr.**Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

- Could help provide electricity to cruise ships, lowering environmental impact of the visitor industry, and assuring compliance with federal environmental quality standards/regulations. (SEIRP forecasts 35,529 MWH annual demand by Ketchikan/Wrangell/Petersberg-area cruise ships)
- Reduces dependence on foreign oil

### **Growth in Regional Demand for Electricity**

Demand for electricity has been increasing substantially in the Ketchikan and SEAPA regions. The Southeast Alaska Integrated Resource Plan (SEIRP) states: "The number of [Ketchikan area] customers increased from 7,347 in 2008 to 7,418 in 2010. Most of the customer increases have been due to high growth in commercial and industrial activities. Unlike other areas in Alaska, Ketchikan has seen a recent spurt in commercial and industrial activities which has led to new customers coming into the area."

In January of 2012, Ketchikan Public Utilities experienced new peak demands for electricity, with peak demand exceeding the prior record by 13.7%, and total KWH delivered in a 24-hour period exceeding the prior record by 14.3%.

### Growing Demand in Ketchikan - New January, 2012 Peak Demand

	Jan 2012	Prior Record	Difference	% Increase
Peak	34.7 MW	30.5 MW	4.2 MW	13.7%
Total KWH (per 24-hour period)	726,600 KWH	634,700 KWH	91,300 KWH	14.3%

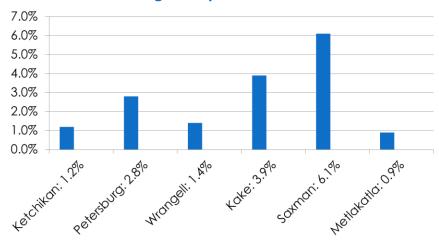
Source: Interview with Ketchikan Public Utilities Staff

In addition to meeting the current growing demand for electricity, investment in new hydroelectric resources will support new private sector investment and job creation in an array of industry sectors, which will help assure that Southeast Alaska has a bright future characterized by a healthy, diverse economy. Southeast Alaska's most promising industry sectors – shipbuilding and repair; mining / ore processing; the seafood industry; the maritime industry; and tech-based enterprise – all require significant amounts of affordably-priced electricity to assure growth and long-term prosperity. Private sector business owners understand that "time is money," and will not "wait" for southeast Alaska to build infrastructure capacity necessary to support proposed business activities; if the infrastructure they need is unavailable, they will operate and create employment in better-prepared communities.

Request for SFY 2014 State Funding for

### #1 Mahonev Lake Hydroelectric Project: Phase III Pre-Construction





Source: 2012 Alaska Department of Labor Report http://labor.alaska.gov/research/pop/popest.htm

### Market Conditions - As Oil Costs Continue to Rise, so will Consumer Demand for Clean, Reasonably-Priced Hydroelectricity

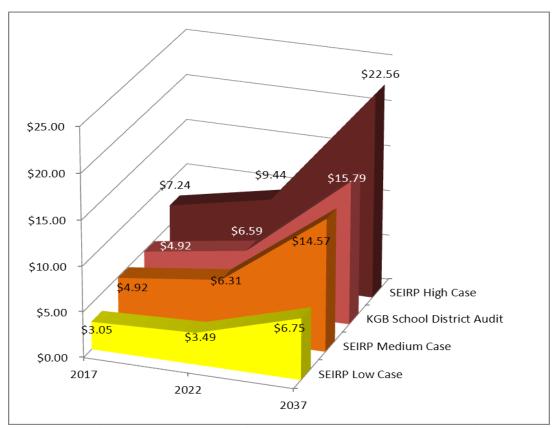
Businesses, residents, and non-profit organizations all seek to purchase the most affordable energy available. Rising heating oil costs have caused many Ketchikan-region residents and businesses to convert to more affordable electric boilers, which see heaviest use during winter months, when storage hydro projects are not receiving new flows. At present, the SEAPA region's growing demand for renewable electricity exceeds supply; a trend which is unlikely to change.

It is particularly difficult to alter consumer behavior; with all other factors being equal, consumers will always follow the lowest bottom line. Responding to Southeast Alaska's existing homeowner and private sector demand for affordably priced renewable electricity offers the most effective approach to supporting continued community and economic growth, and expanding Southeast Alaska's tax base.

A 2011 Energy Audit completed for the Ketchikan Gateway Borough School District projects that the cost of heating oil is rising at 6% annually. Section 5 of the SEIRP presents ISER-generated heating oil price projections which were developed using historical heating oil prices, imported crude oil prices from the AEO, and the CORAC. The SEIRP's "Medium Case Scenario" for the cost of Ketchikan heating oil in 2037 is \$14.57 / gallon (expressed in nominal 2012 dollars, not adjusted for inflation). The SEIRP's "High Case Scenario" is \$22.56 (nominal 2012 dollars, not adjusted for inflation). The SEIRP's "Low Case Scenario" is \$6.75 per gallon. In June of 2012, the price of heating oil in Ketchikan was approximately \$5/gallon (Source: June 2012 Ketchikan Gateway Borough / City of Ketchikan Cooperative Relations Committee Meeting Notes).

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

### **Ketchikan Heating Oil Cost Projections:** 5, 10, and 25 Years (In Nominal 2012 Dollars)



Source: Ketchikan Gateway Borough School District 2011 Energy Audit and Southeast Alaska Integrated Resource Plan

The Ketchikan Gateway Borough School District's October 2011 Energy Audit for Ketchikan High School, funded by the Alaska Housing Finance Corporation and conducted by Alaska Energy Engineering, LLC (Juneau) recommends adding electric boilers to assist the school district in lowering heating oil consumption and operating costs. The School District desires to add electric boilers at regional schools so that it can provide a more cost-effective education system, but is challenged by regional energy shortages; as a result, taxpayers must bear the burden of costlier oil bills via taxes. The School District Superintendent reports that KGBSD still plans to convert to electric boilers, and anticipates that following conversion, KGBSD would purchase \$500,000 of electricity per annum.

### **Proximity to Opportunities**

In the 1990s, the collapse of Southeast Alaska's robust forest products industry devastated southern southeast Alaska's economy. Currently, the region's future is looking brighter due to proximity to emerging opportunities.

Southern southeast Alaska has the potential to contribute substantially to new private sector economic activity, including: ore processing; mining; growth of advanced manufacturing (shipbuilding and repair); serving as a supply/support sector to Arctic offshore oil and gas fleets seeking ice-free winter moorage in communities with well-developed supply chains; State-wide growth of maritime activity; technology-based business; and more. Southeast Alaska must have infrastructure already in place to support these

### **City of Saxman: Mayor Joe Williams, Jr.**Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

emerging opportunities. Southeast Alaska's infrastructure capacity will make the critical difference between these jobs remaining in Alaska, and jobs being exported to other states or nations with greater foresight.

Affordable electricity is an area of common need shared by all business types. Because demand for electricity currently outpaces supply, it should be prioritized as an area requiring immanent investment; otherwise, southeast Alaska runs the risk of seeing jobs exported to communities and nations which are better able to respond to private sector demand.

### **Social Benefits:**

The Mahoney Lake Hydroelectric Project will produce enough energy to displace 3,105,000 gallons of diesel per annum. Over the initial term of its existing FERC license, the project would displace 142,830,000 gallons of diesel. The avoided cost of the diesel in nominal dollars is \$3 billion, and in 2011 dollars is \$530 million. Total carbon dioxide emissions avoided over the initial term of the existing FERC license would equal 1.8 million metric tons, valued at \$67.7 million in 2007 dollars.

(Assumptions: 8% Discount Rate. Initial operating term of FERC License begins 2016, ends 2061. KPU fuel efficiency = 14.81 kilowatt-hours per gallon of diesel #2. Mahoney Lake average annual energy = 41.7 GWH, per the FERC License P-11393. Fuel price projections from Black & Veatch, under contract with AEA for SE Alaska Integrated Resource Study. Carbon Dioxide emissions from Department of Energy and EPA, July 2000 Social Cost of Carbon per Metric ton of Carbon Dioxide Emissions from Interagency Working Group on Social Cost of Carbon, February 2010. This study concludes the cost is \$24.3 in 2016 and increases to \$44.9 per metric ton in 2061 in 2007 dollars.)

The project reduces dependence upon foreign oil, allowing Alaskans to invest half of a billion dollars of their hard-earned money locally, rather than sending it overseas where much of it will end up in the hands of hostile regimes. By supplanting "dirty" diesel fuel with clean, renewable energy, Mahoney Lake will help avoid 1.8 metric tons of carbon dioxide emissions, valued at \$67.7 million in 2007 dollars.

Mahoney lake will support new economic activity, jobs, and prosperity which will increase family sustainability, expand the regional tax base, and allow southeast Alaska's young residents to remain within their communities as gainfully employed, successful adults. The project will result in lower energy costs for businesses, families, non-profit organizations, and community facilities.

Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

### **Mahoney Lake Socioeconomic Benefits**

Supports creation of new jobs and economic activity 1.8 metric tons of carbon dioxide emissions avoided

Displaces 3.1 million gallons of diesel (\$500m value) Reduces dependence on foreign oil.

Expanded tax base generates additional revenue for community services

Lower energy costs for businesses, families, non-profits, community facilities, etc.

Healthier Community & Robust Economy,
Powered by Sustainable, Renewable Energy

### **Support for a Growing Community**

Ketchikan's population is growing, and with it, the community's array of facilities. New projects in varying stages of planning and development include the new Ketchikan library, PeaceHealth Medical Center Expansion, Community Connections's new facility, Saxman Harbor, a redeveloped Saxman Seaport, Ketchikan Indian Community's SSEATEC, the Ketchikan Performing Arts Center, Ketchikan Aquatic Center, Alaska Ship & Drydock's new Assembly Hall, a new Women's Shelter for WISH, Saxman Harbor, and more.

Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

# **Ketchikan's New Facilities Will Result in Increased Regional Demand for Electricity**

### Community Connections





New Library



Hospital Expansion



Mahoney Lake

Ketchikan Aquatic Center



KIC SSEATEC Training Center





School District



WISH: New Shelter

Ketchikan Shipyard

### **Quantified Benefits (Excerpted from AEA Renewable Energy Round VI Application):**

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# City of Saxman: Mayor Joe Williams, Jr. Request for SFY 2014 State Funding for

### #1 Mahoney Lake Hydroelectric Project: Phase III Pre-Construction

	Direct Benefit-Cost Ratio: 6.7
2.7.8 Other Public Benefit (If you can calculate the benefit in terms of dollars please provide that number here and explain how you calculated that number in your application (Section 5.)	Economic Development / Job Creation Benefit \$651,499,200
	(Total Payroll – direct, indirect, and induced – supported by Project.)
	Economic Development Benefit Cost Ratio: 14.2 (Total payroll creation benefit divided by estimated capital construction cost)
	Total Project benefits: \$958,310,250
	(potential annual fuel displacement savings plus total payroll creation)
	Total Benefit Cost Ratio: 20.8
	[Potential annual fuel displacement savings + total payroll creation] divided by estimated capital construction cost