

# CITY OF GOLOVIN GOLOVIN POWER UTILITY



## MONITORING PLAN AND RECOMMENDATIONS

Prepared for:  
**THE ALASKA ENERGY AUTHORITY (AEA)**

**MARCH 24, 2008**

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Prepared by:

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## OVERVIEW

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This Monitoring Plan and Recommendations was completed under contract to the Alaska Energy Authority as a follow-up to an Electric Utility Upgrade project in Golovin, Alaska. The renovated electric power generation facility is located near the new washeteria, city offices, and bulk fuel facility, and consists of four diesel engine generators, load sensing switchgear, and a step-up transformer bank.

A component of the upgrade project was the development of a Business Operating Plan, which provided a guideline for the Golovin Power Utility's maintenance and operation and sustainability of the Electric Utility Upgrade (the "Facility"). The Golovin Power Utility (the "Primary Operator") is responsible to operate and sustain the newly installed facility according to the criteria and guidelines outlined in the Business Operating Plan.

### ***Facility Participant***

The facility participant is:

*Golovin Power Utility*

*City of Golovin*

Primary Contact Name: Kathy Punguk, City Clerk

Phone: (907) 779-3211 Fax: (907) 779-2239

Address: Golovin Power Company

City of Golovin

P.O. Box 62059

Golovin, AK 99762

Usage: The Golovin Power Utility utilizes its facility assets to operate its electric power plant.

### ***Facility Components & Capacity***

The capacity of the electric facility is 610 Kw, using four generators (2 generators at 115, 1 generator at 180, and one generator at 200). The generators feed a load sensing switchgear and step-up transformers; they are sized so the largest generator is capable of handling peak loads during the winter.

### ***Community Information***

The City of Golovin is located on the Seward Peninsula, about 70 miles east of Nome. Transportation to the village is primarily by air or sea, except in the winter, when, conditions permitting, snow machines are also used for travel between villages. Golovin has a State of Alaska-owned 4000 foot air strip that receives regularly scheduled and charter service out of Nome and surrounding villages.

The population of Golovin is primarily Inupiat Eskimo and the number of residents has varied over the past 50 years. The village lifestyle and economy are primarily based on subsistence activities, fishing, reindeer herding, fish processing, and commercial fishing. Commercial fishing permits are held by about 15 residents.

Selected demographic and historical data for the community is provided below:

<b>Population (2000 Census Data)</b>	
2008 <i>(City Mayor estimate)</i>	163 - 167
2000	144
1990	127
1980	88
1970	117

<b>Housing (2000 Data)</b>	
Occupied Housing	45
Vacant Housing Due to Seasonal Use	5
Other Vacant Housing	4

<b>Economic Data (2000 Data)</b>	
Unemployment Rate	3.5%
Median Household Income	\$ 31,875

### ***City of Golovin***

The City of Golovin successfully administers and operates a number of social, community and economic businesses and services. These include the electric utility, bulk fuel storage operations and retail sales, the health clinic, refuse/landfill system, water, and sewer utility. A table follows.

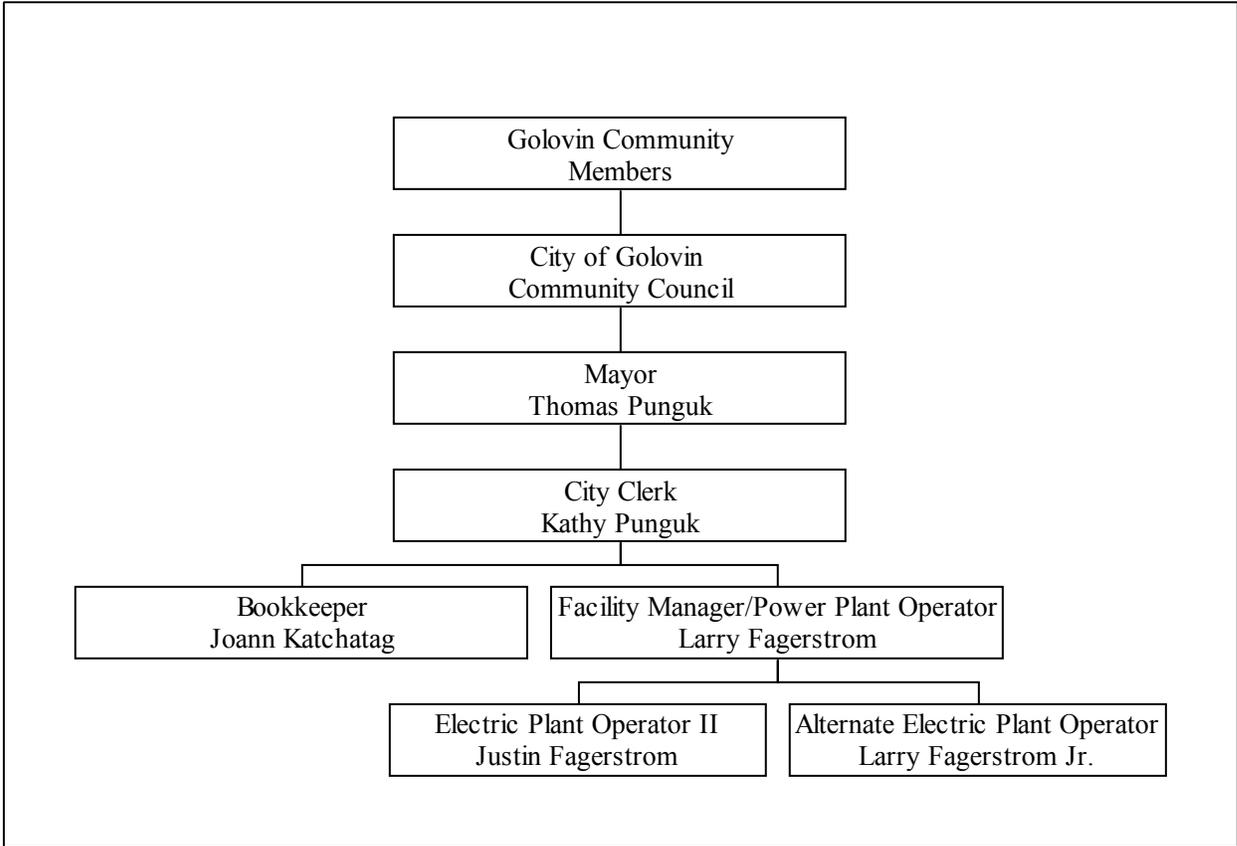
<b>CITY OF GOLOVIN CURRENT BUSINESSES AND SERVICES</b>	
<b>Business or Service</b>	<b>Description</b>
Bulk Fuel Storage & Retail Sales	Operations of bulk fuel tank farm
Electric Utility	Electricity for homes and businesses
Community Health Clinic	Janitorial, maintenance, and utilities
Washeteria & Water & Sewer Utility	Coin-op washer and dryer, showers, retail laundry supplies, water, sewer services
Landfill	Empty and dump trash
Volunteer Fire Department	Support volunteers
Village Public Safety Officer	Runs the safety officers program

The City of Golovin owns and operates the community's electric utility, Golovin Power Utility. The power utility maintains the generator plant, monitors electric meters at residences and businesses, and collects electrical fees. The utility participates in the Power Cost Equalization (PCE) Program; the current charge per kWh is \$.54 with PCE contributing \$.3479 to residential accounts for up to 500 kWh.

The City of Golovin City Council approves the annual budget prior to each July – June fiscal year. City clerk, Kathy Punguk, oversees the expenditures made by the power utility. Members of the city council are authorized to sign power utility checks and authorize bank transactions; two signatures are required on checks. Joann Katchatag, bookkeeper, is responsible for accounts receivable and accounts payable and all other general bookkeeping duties.

Since the Business Operating Plan, dated June 1, 2002, was finalized, there have been some changes to staff and management. These changes and the staff relationships are reflected in the following Golovin Power Utility organizational chart:

**CITY OF GOLOVIN  
GOLOVIN POWER UTILITY  
FACILITY STAFFING**



Following are the current members of the City of Golovin City Council:

City of Golovin City Council	Position
Thomas Punguk	Mayor
Kathy Fagerstrom	Vice Mayor
Agnes Moses	Treasurer
Norma Lewis	Secretary
Julia Randal	Member
Wayne Henry Sr.	Member
Peter Amaktoolik	Member

### ***Monitoring Site Visit***

The Alaska Energy Authority contracted with Aurora Consulting, of Anchorage, Alaska, to conduct a site visit to the City of Golovin's Electric Utility Facility and to develop a "*Monitoring Plan and Recommendations*". The scope of the assignment included working with the City to obtain information on existing management and operational systems, comparing those systems to Business Operating Plan requirements and other "best practices", making recommendations for changes and/or training, developing on-going monitoring tools, and/or working to cure any deficiencies or defaults experienced by the Village.

Aurora Consulting traveled to Golovin on March 3, 2008 to meet with electric facility management and staff, including:

<b>Contacts</b>	<b>Title</b>
Kathy Punguk	City Clerk
Justin Fagerstrom	Power Plant Operator II
Carol Oliver	Alternate Bookkeeper

In addition, conversations with Golovin Power Utility facility manager, Larry Fagerstrom and bookkeeper, Joann Katchatag, were held over the phone.

### ***Monitoring Plan and Recommendations***

The following Monitoring Plan and Recommendations is organized into three sections:

- Management and Operational Skills
- Business Operating Plan Compliance
- Recommendations

Management and operational skills identify those skills and practices that are crucial to the short-term viability of an electric utility, while Business Operating Plan compliance areas identify those activities that are required by the Denali Commission approved Business Operating Plan.

Management skills include administration, fiscal systems, and collections. Operational skills include the ability to perform maintenance, repair, and operation of the electric power plant. Both skill sets require knowledgeable and trained managers, bookkeepers, and facility operators to manage and operate the facility on a daily basis. In contrast, the business operating compliance section details the key activities and actions required to be completed by the facility in order to be in compliance with the terms and conditions of their Business Operating Plan.

Additionally, this report includes major recommendations for continued actions and training, which are detailed in the conclusion section of this report. These recommendations are limited to those actions necessary to meet the deficient management and operational skills or Business Operating Plan compliance areas.

## OVERVIEW OF ELECTRIC UTILITY MANAGEMENT/OPERATIONAL SKILLS

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### *Financial Management*

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	<i>Financial Management Skill Areas</i>
<i>Annual Budget</i>					
				X	Develop and utilize budgeting process
				X	Staff understanding of budget
<i>Bookkeeping</i>					
				X	Develop and track facility costs using a Chart of Accounts
				X	Understand and track operation & management (O&M) costs
			X		Understand and track renewal & replacement (R&R) costs
<i>Collection Policy</i>					
				X	Policy in place
				X	Policy implemented
			X		Collections at appropriate level
<i>Business Operating Plan</i>					
		X			Policy board has general understanding of Plan and requirements
			X		Management has general understanding of Plan and requirements
		X			Staff has general understanding of Plan and requirements
			X		Management understands financial assumptions and tables
		X			Staff understands financial assumptions and tables
		X			Management capable of annual Plan update
		X			Staff capable of annual Plan update
<i>Power Cost Equalization Program</i>					
				X	Participate fully in PCE program
				X	Understands PCE filing and reporting
				X	Staff completes PCE filings and reports

Comments:

#### *Annual Budget*

The city clerk, working with the bookkeeper and facility manager, develops an annual budget for the power utility which is then approved by the city council. The city clerk uses this information to direct the activities of the electric utility; the bookkeeper tracks the financial activities of the utility. Copies of the FY '07 and FY '08 budgets were available on request.

#### *Bookkeeping*

Golovin Power Utility bookkeeping is done using QuickBooks software. Bookkeeper, Joann Katchatag, manages the bank accounts, daily cash reports, account payables, accounts receivable, and prepares payroll, PCE reports and other general bookkeeping duties. Financial reports for revenue and expenditures, in which funding the R&R account is separated from O&M, are prepared monthly for review by the city council.

### *Collections Policy*

Customers are billed monthly, based on meter readings. While we would like to see collections at 95% or better, they are currently at better than 90% with most accounts paid up. Any outstanding amounts are reviewed by the city council at its monthly meetings. If an account is three months late or owes more than \$150 on their account, while reluctant to do so, the council reserves the right to cut off power. There has been discussion on whether also to charge a reconnect fee.

### *Business Operating Plan*

The city clerk is becoming familiar with the general terms and conditions of the Business Operating Plan including the financial requirements, Denali Commission reporting requirements, and the Secondary Operator Agreement. The facility manager has read the Business Operating Plan several times. The city council is aware that the Business Operating Plan provides guidelines and requirements for the management of the Golovin Power Utility and relies on management and staff to meet those requirements and follow the guidelines. They depend on the monthly reports to keep them up-to-date with the utility operations. The plan has not been updated; management would require additional assistance to do so.

### *Power Cost Equalization*

The Golovin Power Utility participates fully in the PCE program and files the appropriate reports and paperwork.

**Personnel Management**

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	<b>Personnel Management Skill Areas</b>
<i>Job Descriptions</i>					
			X		Job descriptions current for all positions
			X		Staff aware of/understand job descriptions
<i>Staffing</i>					
				X	Staffing adequate to operate & maintain the facility
<i>Training</i>					
			X		Staff has adequate training for job requirements
		X			On-going training in place

Comments:

*Job Descriptions*

Job descriptions exist for the electric utility staff positions, although, they have not been reviewed recently. The staff has a good understanding of their roles and responsibilities.

*Staffing*

It appears that the staffing level of the electric utility is adequate to operate and maintain the facility.

*Training*

Golovin Power Utility staff and management appear to have adequate training for their job requirements, although the facility manager mentioned that he would like to have his alternate power operator receive power plant operations training in addition to the on-the job training he has received from the facility manager. In addition, he would like to have more electrical line training especially as it relates to emergency procedures and safety, as well as training to refresh his knowledge of spill response equipment and procedures.

While management is responsive to training opportunities, there is no formal training policy or schedule. It is a matter of taking advantage of opportunities as they present themselves or need for them presents itself. The power plant operator II recently completed Advanced Power Plant Training and would like to have additional training in industrial electric.

The bookkeeper took the AEA Electric Utility Bookkeeping training last year, and just completed PCE Monthly Report training. Council member, Agnes Moses, attended an AEA Electric Utility Manager training course last year. Both the facility manager and the city clerk should attend the AEA Electric Utility Business Training class.

## Operations Management

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	<i>Operations Management Skill Areas</i>
<i>General Operations</i>					
				X	Management/staff have general understanding of operation needs
			X		System to schedule tasks for routine maintenance
			X		System to schedule tasks for non-routine maintenance
<i>Inventory Control</i>					
		X			Inventory control system in place
			X		Know what parts to keep in inventory for routine maintenance
<i>Emergency/Spill Response</i>					
			X		Staff can explain/locate oil spill response plan
			X		Written safety policy

Comments:

### *General Operations*

Operations management and staff are aware of what routine maintenance functions need to occur to keep the electric utility functioning and servicing the community. Routine tasks and inspections are documented on a daily activity log, which is maintained in the power plant. It notes all maintenance checks and readings. There is no schedule for non-routine tasks, as they seem to occur on more of an as-needed basis. The Operator relies on the equipment to indicate if something is wrong or needs to be additionally checked, but he also monitors and checks the automated systems.

### *Inventory Control*

While there is not a list of items on-hand or a formal inventory-control system in place, the power plant supply room is organized in such a manner as to see, at a glance, what is in stock. However, actual numbers of items or valuation of stock on-hand is not available without counting. The operators do have a good idea of what they need and how often it is needed. Items can be ordered on an as needed basis from established vendors. Non-routine, high expense items are pre-approved by the city council.

### *Emergency/Spill Response*

The facility manager and electric plant operator II were confident staff would be able to handle a fuel spill. Emergency/spill response plans are on hand. The staff could locate the plans and is generally familiar with their contents. The facility manager would like to update his knowledge, it has been many years since he last received training on this issue, and recognizes it would be good for all staff as well.

## BUSINESS OPERATING PLAN COMPLIANCE

### *Financial Management*

Yes	No	NA	<i>Financial Management Compliance Areas</i>
<i>O&amp;M Accounts</i>			
X			Accounting established
X			Regular deposits into operating accounts
X			Systems in place for \$5,000 authorizations
<i>R&amp;R Accounts</i>			
X			Accounting established
X			Regular deposits into accounts
X			Interest-bearing savings accounts
X			Resolutions required
X			2 signatures required
		X	Escrow account established
		X	Resolutions required
		X	2 signatures required
<i>Budgets</i>			
X			O&M budget
X			Prior to fiscal year
X			R&R budget
X			Prior to fiscal year
<i>Business Plan Updates</i>			
	X		Review assumptions
	X		Update tables
<i>Audits</i>			
X			Annual audit conducted by qualified, independent auditor
	X		Copy to Denali Commission
<i>Annual Report</i>			
	X		Submitted to Denali Commission timely
	X		Summary of O&M and R&R Projects
	X		Expenditures and account balances
	X		Upcoming O&M and R&R budgets
	X		Updated business plan financial tables
	X		Other information
<i>Insurance</i>			
X			General liability insurance in place
X			Other insurance in place

Comments:

*O&M Accounts*

The City of Golovin, including the Golovin Power Utility, has established operating bank accounts at Wells Fargo Bank. The electric utility's operating and maintenance funds are deposited there; the city clerk oversees the expenditures made by the Golovin Power Utility. Members of the city council are authorized to sign Golovin Power Utility checks and authorize bank transactions; two signatures are required on checks. The council must approve any checks over \$500 before they are written, and, as with all checks, they require council member signatures.

*R&R Accounts*

The Golovin Power Utility has established an interest-bearing savings account at Wells Fargo Bank for its R&R funds. Monthly deposits are being made. The balance as of January 31, 2008 was \$20,094. A resolution is needed to withdraw funds from this account and two signatures are required on any transaction.

*Budgets*

The bookkeeper and city clerk, with the approval of the city council, have established on-going budgeting procedures for the operations of the electric utility. The budgets are updated annually.

*Business Plan Updates*

To date, the Electric Utility Business Operating Plan assumptions and financial tables have not been updated. The city clerk and bookkeeper plan to look at them for the upcoming year, and may require additional assistance to update the plan.

*Audit*

An audit was conducted within the last few years by Mark Johnson, CPA, of Nome, Alaska. The council is preparing to contract for one for FY '07, the audit appears in the budget.

*Annual Report*

The power utility fiscal year runs July – June. The city clerk is aware that an annual report should be submitted as soon as possible for FY '07; the FY '08 report is due by September 30, 2008.

*Insurance*

The City of Golovin has liability insurance with AML/JIA, which covers all City departments including the Golovin Power Utility. They also carry workman's compensation insurance. The city is talking with AML/JIA about getting property insurance for the electric power plant.

***Personnel Management***

Yes	No	NA	<b><i>Personnel Management Compliance Areas</i></b>
<i>Facility Manager</i>			
X			Manager designated
		X	Changes reported to Denali Commission
<i>Staffing Adequate</i>			
X			Staffing adequate
<i>Training Plan</i>			
	X		Training plan in place

Comments:

*Facility Manager*

Lawrence Fagerstrom, facility manager and power plant operator I, has worked for the Golovin Power Utility since 1997. He reports to the city clerk and provides operational information to be included in the monthly reports. He oversees the duties of power plant operator II, Justin Fagerstrom, and alternate power plant operator, Larry Fagerstrom Jr.

*Staffing Adequate*

As mentioned previously, the current staffing seems to be adequate for the overall operation and maintenance of the facility.

*Training Plan*

Keeping key employees sufficiently trained is crucial to the successful compliance with the Business Operating Plan. The manager and the city clerk value the importance of training and, while there is no formal training plan in place, they look for and try to take advantage of appropriate training opportunities for staff and themselves.

As mentioned previously, the city clerk and/or the facility manager should attend the AEA Electric Utility Business Training.

## Operations Management

Yes	No	NA	Operations Management Compliance Areas
<i>Facility Components in Good Working Order</i>			
X			Facility components in good working order
<i>SPCC</i>			
X			SPCC on-hand
X			SPCC current
<i>Facility Response Plan</i>			
X			Plan on-hand
X			Plan current
<i>Coast Guard Operations Manual</i>			
X			Manual on-hand
X			Manual current

Comments:

### *Facility Components in Good Working Order*

The facility components themselves appear to be in good working order, however, the roof of the electric power plant sustained some damage in a recent wind storm and actions are being taken to get it repaired.

### *SPCC/Facility Response Plan/Coast Guard Operations Manual*

The City has received its copies of the facility's regulatory plans and its Operations Manual. The staff was able to locate them, but, indicated they had not reviewed them recently.

## RECOMMENDATIONS

All of the Golovin Power Utility management and staff demonstrated a genuine interest in fully understanding and implementing the Business Operating Plan. The management and staff made themselves available for a thorough site visit, to answer questions, and to review the Business Operating Plan and facility operations. They expressed interest in fully complying with the terms and conditions of the Business Operating Plan and managing the facility in a sustainable manner.

The following outlines the systems and procedures that should be addressed by the Power Company, areas that technical assistance/training may be warranted, and operational areas requiring follow-up:

	ASAP	Within Year	On-Going
<b>Systems and Procedures</b>			
Develop system to update and submit Annual Report to Denali Commission	X		
Develop process for annually updating Business Operating Plan assumptions and financial tables		X	
<b>Technical Assistance/Training</b>			
Updating Business Operating Plan		X	
Preparing and submitting Denali Commission report		X	
<b>Training</b>			
Develop written staff and management training plan		X	
Schedule Electric Utility Business Training for city clerk/facility manager	X		
<b>Operations</b>			
Document scheduling routine and non-routine tasks		X	
Develop a more formal means of tracking inventory		X	

## TRIP PHOTOS

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power plant signage II



power plant & day tank II



security fencing



Golovin Power Plant II



piping



safety equipment



Golovin Power Plant



power plant day tank



power plant signage



controls



inventory



instruction manuals



inventory II



inventory III



equipment



daily log



controls II



tank alarm



exhaust vent



power plant & day tank III



power plant & day tank



City office