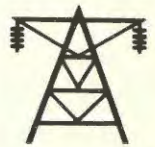


# **MUNICIPAL LIGHT AND POWER**

# MUNICIPAL LIGHT AND POWER



## **Mission**

Municipal Light and Power's mission is to serve present and future customers with electrical energy. This will be accomplished in a safe, economical and reliable manner.

## **Goals**

- Plan and prepare for future energy needs and requirements.
- Maintain existing electrical system to provide optimum economic efficiency.
- Establish fair and equitable rates for all consumers providing adequate revenue for effective performance.
- Deliver reliable services to meet reasonable expectations of Municipal Light and Power customers.
- Develop and implement policies, procedures and standards that provide for sound financial management.
- Provide for the safety of the public, employees and the protection of the system.
- Insure compliance with environmental regulations. Plan with regard for aesthetics.
- Promote and encourage a shift from non-renewable to renewable and sustainable resources.
- Train, educate and promote employee development and participation to ensure efficient and safe operation of the system.
- Encourage community involvement and promote public awareness.
- Promote energy conservation.
- Develop community education regarding action consumers should take during power shortages and outages.

## **Factors Driving the Utility**

- Population Growth in Anchorage Area
- Commercial and Institutional Development within Municipal Light and Power's Service Area
- Increasing Residential Density
- Federal/State Regulatory Requirements
- Road Improvement Projects
- Undergrounding Projects
- Improved Street Lighting
- Reliability Enhancements



## **Planning Assumptions**

The following assumptions have been used in developing Municipal Light and Power's 1984—1989 long-range plans, using the best data available at this time.

- Anchorage - Fairbanks Intertie will be completed.
- Susitna Hydro Project will be underway.
- ML&P/CEA Boundary Dispute will be resolved.
- Undergrounding based on Municipal Ordinance requirements.
- Natural gas available to meet all generation requirements except during extreme cold spells and emergencies when natural gas curtailment will occur.
- Commercial development will continue in the Central Business District and Mid-Town.
- Inflation, no real increase or decrease in wages or services.

## **Objectives**

Currently identified major objectives by Municipal Light and Power over the next six (6) years are:

### **ADMINISTRATION**

- Complete a Prevention of Significant Deterioration (PSD) Study and prepare application for Federal EPA pre-construction permit for additional generation capacity.
- Coordinate the removal of all known, unprotected Polychlorinated Biphenyl (PCB) articles on the system.
- Expand safety program including the development and implementation of Municipal Light and Power's own safety manual.

### **ENGINEERING**

- Develop a ten-year plan for Municipal Light and Power's generation, transmission and distribution requirements.
- Expand the Distribution Load Management System to monitor customer consumption, distribution load, feeder load and produce statistics for outage reporting, maintenance monitoring and annual reporting.
- Implement a computer-assisted dynamic tracking system for engineering project design and construction management that will provide current status of projects on an on-going basis and allow for scheduling modifications.

### **GENERATION**

- Perform an active preventative maintenance program to obtain the best reliability and efficiency with the existing equipment.
- Secure and install additional emergency fuel oil supply.
- Obtain additional generation to be firm for 1985 and 1989 winter peaks.

### **FINANCIAL SERVICES**

- Expand Community Awareness Program on the source and conservation of electric energy.
- Complete a comprehensive review of Municipal Light and Power's tariff and rewrite.
- Complete the implementation of a computerized construction management program.

### **SYSTEMS AND COMMUNICATIONS**

- Plan, develop/obtain, implement and provide hardware for automated systems as approved by the Utilities Data Processing Requirements Committee.



## Programs

The following programs and projects are those recognized as necessary to accomplish and satisfy Municipal Light and Power's objectives over the next six (6) years.

### ADMINISTRATION

- Prevention of Significant Deterioration (PSD) Study
  - Computerize data information
  - Model Dispersion effects using appropriate screening computer model
- Remove unprotected Polychlorinated Biphenyl (PCB) particles from the system
  - Evaluate current screening system for validity
  - Implement refinements
- Expand Municipal Light and Power Safety Program
  - Evaluate current safety program and practices
  - Develop Municipal Light and Power's own safety manual

### ENGINEERING

- Develop Ten-Year Generation, Transmission and Distribution Plan
  - Select and employ consultant
  - Implement plan
  - Adjust plan annually
- Expand Distribution Load Management System
  - Redefine Load Management objectives
  - Enhance portions of original program
  - Implement revised system
- Computer Assisted Tracking System for Engineering Project Design and Construction Management
  - Evaluate and define areas of concern
  - Develop a data collection procedure

### GENERATION

- Perform Active Preventative Maintenance Program
- Secure Reliable Fuel Supplies
- Additional Generation For 1985 and 1989 Winter Peaks
  - Provide additional emergency fuel oil supply at Plants I and II
  - New Control System for units 1,2,3,4 and 5
  - Provide additional anti-icing/deicing systems
  - Provide new inlet filtration
  - Investigate alternative types of generation
  - Construct new turbine maintenance shop
  - Replace anti-icing/deicing equipment

## Programs (Continued)

### OPERATIONS

- Improve Reliability/Reduce Service Interruptions
  - Replace faulty connections and hot line clamps
  - Annual tree trimming
  - Install and maintain Supervisory Control and Data Acquisition (S.C.A.D.A.) System
  - Annually evaluate distribution system
  - Preventative maintenance on 115 KV switch yards
  - Implement midnight loopwagon
  - Vehicle and equipment maintenance
- Improve Street Lighting
  - Continue reconstruction project
- Assure Safety to Municipal Light and Power Personnel and the Public
  - Identify and upgrade high voltage fused cutouts
  - Replace poles which are rotted and split
  - Replace obsolete high voltage switch cabinets

### FINANCIAL SERVICES

- Expand Community Awareness Program/Energy Sources and Conservation
  - Refine and concentrate advertising in effective areas
  - Participate in community sponsored programs/projects
- Update and Rewrite Municipal Light and Power Tariff
  - Identify areas of concern and rewrite/update
  - File with Alaska Public Utilities Commission
  - Comprehensive review with the Electric Commission and Municipal Assembly
- Improve the Recording and Reporting of Project Costs
  - Implement a computerized construction management program

### SYSTEMS AND COMMUNICATIONS

- Plan, Develop/Obtain, Implement and Provide Hardware for Automated Systems
  - Upgrade computer hardware
  - Develop a Cost of Service System
  - Develop an outage reporting system
  - Develop automated systems to provide current financial information
  - Develop Generation Predictive Maintenance System
  - Develop and maintain long-range Data Processing Plan

### MANPOWER FORECAST

DIVISIONS	1983	1984	1985	1986	1987	1988	1989
Manager	5	7	8	8	9	9	9
Engineering	28	31	37	40	41	41	41
Generation	42	44	47	48	49	50	50
Operations	39	46	53	53	55	55	55
Finance	30	32	36	36	36	36	36
Systems	5	6	8	8	9	9	10
<b>SUB-TOTAL</b>	149	166	189	193	199	200	201
Summer Student Temporaries	5	3	3	3	3	4	4
<b>TOTAL</b>	154	169	192	196	202	204	205

**Note:** Manpower Forecast from 1985 to 1989 reflects projections based on ML&P/CEA Boundary Settlement.



## RESOURCE IMPACTS

	1984	1985	1986	1987	1988	1989
<b>Growth Factors</b>						
Meters	19,255	19,929	20,627	21,349	22,096	22,869
KWH Sales (MWH)	723,378	777,501	842,112	907,691	975,768	1,048,951
Bonds Sales (thousands)	\$ 33,864	\$ 23,086	\$ 18,640	\$ 21,880	\$ 38,371	\$ 26,325
Grants Anticipated (thousands)	\$ 1,500	\$ 200	\$ 200	\$ 25	\$ 85	\$ 90
<b>Personnel Increases</b>						
Customer Assistance	3	0	0	0	0	0
Late Night Loop Wagon	2	0	0	0	0	0
ML&P/CEA Boundry Settlement	0	17	2	0	0	0
Safety Program	1	0	0	0	0	0
Reorganization	4	0	0	0	0	0
Normal Growth	5	6	2	6	2	1
<b>TOTAL</b>	15	23	4	6	2	1
Revenue (thousands)	\$ 44,245	\$ 48,509	\$ 59,078	\$ 67,525	\$ 75,113	\$ 83,563
Expense (thousands)	40,996	47,850	58,036	66,151	73,218	81,357
Net Income Regulatory (thousands)	\$ 3,249	\$ 659	\$ 1,042	\$ 1,374	\$ 1,895	\$ 2,206
Possible Rate Increases	16%		12%		15%	

## 1984 BUDGET IMPACTS

### Operational

- The cost of natural gas to operate the turbines will have significant impact in 1984 affecting the cost of service thereby affecting the ratepayers.
- Sale of power to Chugach Electric Association from the newly constructed Generation Unit No. 8 will off-set debt service and cover variable operating costs thereby reducing the impact on the retail ratepayer.

### Capital

- Construction of Generation Unit No. 8 to help meet the immediate needs of Chugach Electric Association's generation short-fall through 1986.
- Construction of fuel oil storage facilities at Generation Plan No. 2 to address emergency generation needs during shortages of natural gas supply due to curtailment and/or disasters.

# BUDGET SUMMARY

	1982 ACTUAL	1983 PRO-FORMA	1984 PROPOSED
<b>OPERATING BUDGET</b>			
Revenue	\$ 28,457,254	\$ 33,921,830	\$ 44,965,800
Expense	26,984,192	33,332,680	41,126,640
Net Income for Governmental Financial Reporting	\$ 1,473,062	\$ 589,150	\$ 3,839,160
Adjustment for Regulatory Reporting	(551,947)	(395,290)	(590,000)
Net Income (Regulatory)	\$ 921,115	\$ 193,860	\$ 3,249,160
<b>CAPITAL BUDGET</b>			
Generation	\$ 10,672,000	\$ 5,220,000	\$ 19,857,000
Transmission-Plant	830,000	250,000	1,608,000
Transmission-Lines	1,646,000	1,067,000	4,675,000
Distribution-Plant	745,000	725,000	470,000
Distribution-35KV	1,850,000	1,330,000	300,000
Distribution-12.47KV	2,319,000	1,027,000	1,385,000
Distribution-State	253,000	278,000	306,000
Distribution-Municipal	451,000	500,000	550,000
Underground	*	*	1,510,000
Transformer & Capacitors	513,000	567,000	638,000
Meters & Service	499,000	532,000	1,067,000
Street Lighting	150,000	855,000	2,000,000
Land & Landrights	74,000	130,000	104,000
General Plant	1,475,000	2,170,000	2,805,000
<b>TOTAL</b>	<b>\$ 21,477,000</b>	<b>\$ 14,651,000</b>	<b>\$ 37,275,000</b>

\*Underground Costs Covered in "Distribution State and Municipal"