MUNICIPAL LIGHT AND POWER UTILITY

MUNICIPALITY OF ANCHORAGE Unit No. Unit No. Utility Division Unit No. **Public Utilities** MUNICIPAL LIGHT AND POWER 8500 8000 GENERAL MANAGER OF MUNICIPAL LIGHT & POWER MANAGER OF MANAGER OF MANAGER OF MANAGER OF POWER MANAGEMENT **OPERATIONS ENGINEERING GENERATION** MANAGER OF MANAGER OF SYSTEMS & COMM'S FINANCIAL SERVICES

Utility 1997		Division	Budget	Year	
MUNI	ICIPAL LIGHT & POWER		1988		

MISSION

Municipal Light and Power is committed to being Alaska's energy leader by being innovative and trustworthy in responding to our customer's needs for safe, economical and reliable electrical service.

GOALS

The goals of Municipal Light and Power (ML&P) are to:

- 1. Continue planning to ensure ML&P's financial well-being while supplying our customers electrical energy requirements.
- 2. Operate and maintain the electrical system with optimum economic efficiency.
- 3. Expand the "customer is number one" program, which emphasizes customer assistance, and prompt and reliable service.
- 4. Provide for the safety of the public and employees in the operation of the electrical system.
- 5. Comply with environmental regulations.
- 6. Promote energy resource conservation through a shift from non-renewable to renewable and sustainable resources.
- 7. Continue with our leadership role in railbelt energy planning.
- 8. Continue program refinements for identifying customers with special electrical needs for life support.
- 9. Enhance programs that increase community knowledge of the electric utility and of electrical safety.
- 10. Plan with regard to aesthetics.
- Refine ML&P's management team skills.

Utility

MUNICIPAL LIGHT & POWER

Division

Budget Year

1988

GOALS - CONTINUED

- 12. Continue employee development programs.
- 13. Improve financial management through implementation of a total financial information system at ML&P.
- 14. Enhance resource management capabilities of existing ML&P information systems and develop new systems to provide timely project cost information.
- 15. Improve document management and retrieval.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER		1988

FACTORS DRIVING THE UTILITY

- 1. 1987 KWH sales are projected to decrease below 1986.
- 2. KWH sales for 1988 and beyond will remain constant, or increase slowly.

3.	State and Municipal governments w	ill have lower budgets.	
4.	Environmental regulations will car	use increased cost in electric service.	* * * * * * * * * * * * * * * * * * * *
5.	New construction activity will be	minimal for the budget period.	
6.	Consumers will continue to expect	low cost reliable service.	
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MUNICIPAL LIGHT & POWER

Division

ADMINISTRATION

Budget Year 1988

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FUNCTIONAL DESCRIPTION

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GENERAL MANAGER'S OFFICE STATES OF THE STATE OF

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Through the six Divisions reporting to it; this office is responsible for administering the Municipality's energy plan. The Department plans for its future needs, develops the necessary programs, designs its projects, constructs those projects and operates and maintains those projects and facilities essential to providing electric service to its consumers.

Administrative Section (1969, sugaring)

Provides administrative support to the General Manager and Assistant General Manager, including the Training and Career Development Section. Also administers the utility safety, public relations, Federal and state regulatory compliance, central records management, billing preparation and mailing programs and the utility telephone switchboard/receptionist area.

- 1. IMPROVEMENT IN EMPLOYEE RELATIONS.
- 2. AIR QUALITY STUDY.
 - ° Collect air quality and meteorological information to refine data base.
 - Model dispersion effects as required by regulatory agencies.
- 3. SECURITY SYSTEMS FOR ALL ML&P FACILITIES.
 - Electronically monitor plants and substations.
 - Ongoing review and enhancement of security needs.
- 4. CONTINUE PCB TESTING AND REMOVAL.
- 5. HAZARDOUS CHEMICALS CONTROL PROGRAM.
 - ° Continue monitoring the use and control of hazardous chemicals.
 - ° Continue review and refinement of the program.

Budget Year Division Utility 1988. **ADMINISTRATION** MUNICIPAL LIGHT & POWER OBJECTIVES AND TASKS - CONTINUED 6. PROVIDE FOR THE SAFETY OF ML&P PERSONNEL AND THE PUBLIC. ° Training program refinements. ° Enhancements of inspection programs. 7. EXPAND THE ELEMENTARY EDUCATIONAL PROGRAMS ON ENERGY AND SAFETY MATTERS. ° School presentations: "ZAP" and "Safety City". 8. PROMOTE COMMUNITY UNDERSTANDING OF THE UTILITY. "Customer is number one" Program. " Handout information for new customers. OFFICE And Educational programs for industry. Community Council participation. 10.137 31.0391 the Training and Carry Management was teneral found. The Training and Carry his in the Training and Carry his indicate and carry his indi * Technical library relocation and expansion. Vanila Infliate computerized indexing. o Provide internal training program. Municipality's energy plan. The imparient plans for its in a needs, develops the necessary profit and while the content brederick but because the projects Through the Complete 528 of Alan fasks, 1888 twistly fellance, complete ph. 1881 administrating the ° Provide internal training program. Refine plan objectives as required. 11. ENHANCE CAREER DEVELOPMENT. LINCHLAND MECKINION. * Executive career management enhancements. WORLD WIND IN -- WIND IN --· 精、花、红、红、红、红、红斑样 CONTRACTOR OF THE PROPERTY OF Her 1691 22 1 8 A .. M

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Utility	MUNICIPAL LIGHT & POWER	Division ADMINISTRA	TION (1871) (1864) (1874) Anna Carlo (1884) (1874)	Budget Year 1988
OBJE	CTIVES AND TASKS - CONTINUED		talija saku su ili sisaasu neeg	a interest mention
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Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	ENGINEERING	1988

ENGINEERING DIVISION

Conducts system planning, system analysis, system design, project management and support to the General Manager and other Divisions.

Administrative Section

Under the direction of the Chief Engineer provides administrative support and overall management and direction to the other five sections reporting to the Chief Engineer (Division Manager).

System Planning Section

Conducts transmission, distribution and generation system planning, prepares load forecasts, conducts resource planning and performs system analysis.

Transmission/Distribution Design Section

Conducts design for system improvements, relocations, major line extension and prepares construction standards.

Customer Engineering Section

Provides engineering services to new residential, commercial and industrial customers requiring new construction line extensions and lighting systems.

Station Design Section

Provides electrical system protection design, switchyard design and substation design.

CELE-Engineering Support Section

Provides internal support services to the Division's other Sections including mapping, drafting, surveying, as-built records management and right-of-way acquisition assistance.

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Division **Budget Year** Utility 1988 -ENGINEERING MUNICIPAL LIGHT & POWER

- 1. DESIGN TRANSMISSION AND DISTRIBUTION FACILITIES TO PROVIDE SERVICES TO NEW AND EXISTING CUSTOMERS.

 Reconstruct generation plant I 34.5kv distribution feeder ring bus.
- Complete Phase III 115kv transmission line between Mt. View and Plant I.
 - Install alternate 34.5ky Feed into C.B.D..
 - ** Upgrade intertie with Elmendorf AFB power plant.
 - & Participate in intertie to Kenai Peninsula.
 - * Reconstruct a portion of the Eklutna 115kv transmission line.
 - ° Construct second inner 115kv substation transmission loop.
 - 12.47kv distribution feeders.
 - * Automation of key 12.47KV distribution feeders.
 - Acquire substation 21 and 22 sites.
 - ° Construct street lighting to meet community needs.
 - ° Continue improvement to S.C.A.D.A. System.
 - ° Continue conversion of 34.5KV Loads in the port dock and C.B.D. areas.
 - ° Construct substations 21 and 22.
 - 2. PROMOTE SAFETY CONSCIOUSNESS IN DESIGN OF TRANSMISSION AND DISTRIBUTION FACILITIES.
 - ° Utilize feedback from safety officer and work crews.
 - º Incorporate 1987 national electric safety code changes.
 - Conduct review of material and construction standards.
 - 3. PROMOTE UTILITY COORDINATION PROGRAM.
 - ° Enhance joint trenching agreement procedures.
 - Oevelop system to monitor effectiveness of the joint trench program.
 - Promote municipal underground utility placement standards.
 - ° Support compatible geographic information system development.
 - 4. DEVELOP AND IMPLEMENT A CONSTRUCTION PERMIT COMPLIANCE TRACKING SYSTEM TO INSURE ONGOING FOLLOW-THROUGH OF PERMIT TERMS AND CONDITIONS.
 - ° Conduct an audit and catalog all existing permits.

UtilityDivisionBudget YearMUNICIPAL LIGHT & POWERENGINEERING1988

OBJECTIVES AND TASKS - CONTINUED

- ° Develop a system to monitor the following agencies.
 - MUNICIPAL
 - STATE
 - FEDERAL
 - MILITARY
 - PRIVATE AGREEMENTS
- ° Monitor on an annual basis.
- ° Define monitoring systems.
- 5. DEVELOP AND IMPLEMENT A PROGRAM FOR ENGINEERING DESIGN WORK EFFICIENCY.
 - * Develop a design manual (independent of engineering manual).
 - * Provide a feedback system to measure the success of the program, and to update design standards.

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- 6. TRANSFER RESPONSIBILITY FOR EASEMENT/R.O.W./PERMIT ACQUISITIONS FROM PROPERTY MANAGEMENT TO ML&P.
 - * Redefine areas of responsibility. The transfer of the Time.
 - ° Joint effort with A.T.U..
 - * Redefine review process for Title 21 and Title 24 compliance.
- 7. IMPROVE AREA AND STREET LIGHTING DESIGN PROCESS

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- * Define responsibility between ML&P and traffic engineering.
- * Review and modify operating tariff language and schedules for area and street lighting.
- * Implement the use of computer aided design of area and street lighting.
- 8. IMPLEMENT COMPUTERIZATION OF TRANSFORMER INVENTORY AND ALLOCATION.
- 9. CONTINUE TO EXPAND PLANNING SECTION SYSTEM STUDIES.
 - * Disaggregate system load forecast.
 - * Perform fault studies on transmission and distribution systems.
 - Automate system analysis data base through interface with C.P.R. System.

Utility MUNICIPAL LIGHT & POWER Division ENGINEERING Budget Year 1988

OBJECTIVES AND TASKS - CONTINUED

- 10. CONDUCT A COMPREHENSIVE CHECK OF C.P.R. DATA BASE AGAINST THE UPDATED ENGINEERING MAPPING RECORDS.
- 11. CONDUCT A THOROUGH REVIEW AND EVALUATION OF THE EXISTING SYSTEM PROTECTIVE DEVICES.
 - ° Update impedance diagrams.
 - ° Conduct load flow, short circuit and stability studies.
 - ° Catalog existing devices.
 - " Conduct a fault duty check on existing equipment.
- 12. INTEGRATE COMPUTER AIDED DESIGN CAPABILITIES INTO "TOTAL" DESIGN PROCESS.
 - Develop standard construction assemblies for drawings.
 - Modify existing software programs to accept standards.
 - ° Format C.A.D. output to HP 3000 input requirements.
 - Interface to C.P.R. System.
- 13. ENHANCE DISTRIBUTION LOAD MANAGEMENT SYSTEM CAPABILITIES.
- 14. COMPUTERIZE ENGINEERING SUPPORT RECORDS.
 - ° Permits/Easements.
 - ° Construction Drawings.
 - ° Contracts.
- 15. CONTINUE TO IMPROVE MATERIAL AND CONSTRUCTION STANDARDS.
 - ° Research industry standards.
 - * Improve vendor information channels.
 - Review standards for assembly efficiency.
 - ° Utilize computerized drafting.
- 16. CONVERT MANUAL SYSTEM OF ELECTRICAL MAPS TO COMPUTER AIDED SYSTEM.
 - ° Distribution Maps.
 - ° Substation Feeder Maps.

Utility Division **Budget Year** MUNCIPAL LIGHT & POWER FNGINEERING 1.988

OBJECTIVES AND TASKS - CONTINUED

- 17. CONTINUE UPDATE OF TEN-YEAR LONG-RANGE PLAN FOR ML&P GENERATION, TRANSMISSION AND DISTRIBUTION REQUIREMENTS.
- 18. EXPAND COMPUTER AIDED DRAFTING.
 - * Add work station to engineering support section, for use in map conversion.
 - * Employee training and development.
 - * Improve productivity.
- 19. CONTINUE TO IMPROVE CONSTRUCTION ESTIMATING PROCEDURES.

 - Develop further standardization.
 Conduct work order reviews during construction in progress.
 Utilize information review and construction feedback system.

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Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	FINANCIAL SERVICES	1988

FINANCE DIVISION

Provides full line of financial services including budget, accounting, customer service, and rates and tariffs to the General Manager and other Divisions.

Administrative Section

Under the management of the Finance Manager provides administrative support and management direction to the four sections in Finance.

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Planning and Budget Section

Responsible for financial forecasting, financial modeling, bond sale activities and the yearly budget submissions.

Rates and Tariffs Section

Participates in regulatory activities such as tariff revisions, revenue requirements, cost of service and intervenes on other activities before the APUC.

Customer Service Section

Responsible for acceptance, scheduling and completing of service connects and disconnects, meter reading, billing, collections and maintenance of customer records.

Accounting Section

Financial record keeping of the utility in the manner prescribed by the Federal Energy Regulatory Commission, the Alaska Public Utilities Commission, and generally accepted accounting principles is the responsibility of this Section.

Utility Division Budget Year MUNICIPAL LIGHT & POWER FINANCIAL SERVICES 1988

OBJECTIVES AND TASKS

- 1. Implement "Customer Is Number One" program.
 - * Develop ongoing Customer Relations program for training all utility personnel who come in contact with customers.

* Evaluate phone system capabilities and usage, for enhancements, to speed handling of customer calls.

- * Review handling of correspondence for improvements in tracking, content, response time and follow-up.
- Obevelop a new customer handout package explaining utility goals, and programs available.
- 2. Continue program refinements for identifying customers with special electric needs.
 - * Establish methods to inventory and identify customers with similar special needs for electric service.
 - ° Continue to work with energy assistance agencies and determine other programs available within the community which relate to individuals having special electric needs, and how ML&P should respond to them.

Oevelop ML&P action plan/information program to interface with community programs when need is determined.

- Train personnel in activities necessary to meet program objectives.
- 3. Plan for In-House Financial Information System.
 - Establish the system's requirements to meet internal and external needs.
 - ° Conduct a search for the system that most closely meets those requirements.
 - ° Perform a cost/benefit analysis.
 - Establish time lines and technical requirements.
 - Implement, in a phased approach, the system that best satisfies selection criteria.
- 4. Continue to provide Accurate and Timely Financial and Accounting Information.
 - Review management financial reporting requirements.
 - Revise and/or prepare reports necessary to meet the requirements.
 - Streamline in-house generated financial reports.

Utility	Division	Budget Year	
MUNICIPAL LIGHT & POWER	FINANCIAL SERVICES	1988	

OBJECTIVES AND TASKS - CONTINUED

- 5. Educate ML&P personnel on regulatory issues.
 - ° Conduct training sessions on interpretation of specified tariff sections.
 - * Provide information and instruction on Cost of Power calculations and tariff revisions.
- 6. Establish electronic spreadsheets to evaluate regulatory financial position.
 - ° Provide cost of service allocation model for use with year end data.
 - Provide standardized formats to facilitate current and updated revenue requirement studies.
- 7. Provide timely response to federal and state regulatory decisions.
 - ° Monitor federal and state regulatory proceedings.
 - · Plan the extent of regulatory involvement to minimize the need for overtime.
 - Revise tariffs as required during the year.
- 8. Develop timely business plans and budgets.
 - ° Define ML&P's Budget Policies and strategies.
 - * Provide Budget quidance to Division Managers throughout the year.
 - ° Coordinate divisional input to the annual business plan and budgets during the first and second quarters.
 - Produce the annual business plan, operating and capital budgets during the second and third quarter.
 - * Prepare management presentation packages on the budget during the third quarter.
 - * Develop and implement long-range financial forecasts and reports.
- 9. Provide analysis and advise management on financial alternatives facing the utility.
 - * Provide a yearly financial plan to division managers and the general manager.
 - " Monitor the financial plan monthly and recommend alternatives to deviations.
 - * Project results of various actions using financial modeling.
 - * Implement approved controls to the financial plan.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	GENERATION	1988

GENERATION DIVISION

Responsible for the operation, maintenance, and installation of equipment at the utility's power plants.

Administration Section

Under the direction of the Generation Manager provides administrative support and overall management and direction to the other four sections reporting to the Generation Manager.

Plant #1 Crew Section

Operates and maintains the gas turbines and auxiliary equipment on a 24-hour basis.

Plant #2 Crew Section

Operates and maintains the gas and steam turbines and associated auxiliary equipment on a 24-hour basis.

Electrical Crew Section

Responsible for the maintenance and installation of the Generation Division computers, electrical generation boards, and general plant electrical service.

Heavy Mechanical Crew Section

Performs overhauls and general maintenance of the Generation Division gas and steam turbines. Provides new construction and refurbishment of used parts.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	GENERATION	1988

- 1. CONTINUE AN ACTIVE MAINTENANCE PROGRAM TO OBTAIN THE BEST RELIABILITY AND EFFICIENCY.
 - * Maintain high quality of reliability/availability with good quality of maintenance.
 - As economically desirable, enhance in-house repair capability to improve utilization of existing manpower and improve equipment reliability.
- 2. PROMOTE RELIABILITY, AVAILABILITY, EFFICIENCY AND IMPROVEMENTS.
 - * Provide black start capability at Plant II.
 - * Repowering as an economy/energy resource.
 - * Improve anti-icing and air filtration of older units.
 - ° Install water conservation equipment.
 - ° Continue investigation of alternative types of generation.
 - Improve combined cycle and simple cycle efficiency.
 - * Improve facility to meet new safety, seismic and fire protection standards.
 - Improve turbine-generator controls and automated data gathering to increase reliability and efficiency.
 - " Improvement of SCADA equipment as needed.
- 3. SECURE RELIABLE FUEL SUPPLIES.
 - ° Continue with the emergency fuel supply improvements as required.
 - * Investigate gas storage alternatives (ING/underground).
 - * Investigate other energy/fuel sources.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	OPERATIONS	1988

OPERATIONS DIVISION

Provides construction, maintenance, and operation of the transmission and distribution systems, contract administration of contracted projects and personnel, facility and grounds maintenance, vehicle maintenance and repair, and warehousing of construction and maintenance material. Provides support to the General Manager as well as other Divisions.

Administrative Section

Under the direction of the Operations Manager provides administrative support and overall management and direction to the other four sections reporting to the Operations Manager.

Line Section

Provides the maintenance and operational personnel necessary to complete the construction, maintenance and operation of the transmission and distribution system.

Day Labor/Contract Section

Provides the contract administration and quality control of construction projects and supervision of contracted personnel. Provides Construction Assistance Contracts in order to supplement the completion of transmission, distribution and substation projects.

Technical Services Section

Provides the technical personnel necessary to complete electrical metering, substation operation and maintenance, transformer repair and warehousing, radio installation and maintenance, building maintenance and repair, and field locating of underground distribution.

Warehouse/Vehicle Maintenance Section

Provides the storage and issuance of construction and maintenance utility material for the Line and Day Labor/Contract Sections. Provides the maintenance and repair of all utility department vehicles.

Utility	y	Division	Budget Yea	r
	MUNICIPAL LIGHT & POWER	OPERATIONS	1988	

- 1. IMPROVE RELIABILITY AND REDUCE SERVICE INTERRUPTIONS THROUGH ONGOING INSPECTION AND PREVENTIVE MAINTENANCE PROGRAMS.
 - ° Continue maintenance of the pilot wire system.
 - Annually inspect and maintain the CBD vault-duct system.
 - Annual tree trimming.
 - ° Continue maintenance of SCADA System.
 - Annual inspection and maintenance of distribution system.
 - ° Preventive maintenance of substations and 115KV switch yards.
 - * Improved transformer maintenance facility, and PCB holding area.
 - ° Continue comprehensive meter audit program.
 - ° Continue system inspection program, using infrared and x-ray technologies.
- 2. PROVIDE RELIABLE FLEET SERVICES, AND VEHICLE MAINTENANCE.

 - Perform annual IM Inspections on all vehicles.
 Continue annual vehicle safety inspections.
 Continue to provide reliable vehicles, which minimize costly down time.
- 3. PROVIDE IMPROVED STREET LIGHTING.
 - ° Continue the upgrade of older street lighting systems.
- 4. PROVIDE EFFICIENT SYSTEM CONSTRUCTION.
 - ° Refine Comprehensive Construction and Scheduling Program.
 - Annually monitor and evaluate:
 - Technical Services Contract:
 - Day Labor Contract;
 - Unit Price Contract;
 - Expedite Bid Program.
 - * Provide effective reliable construction feedback and tracking system.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	OPERATIONS	1988

OBJECTIVES AND TASKS - CONTINUED

- 5. PROVIDE EFFECTIVE SYSTEM COMMUNICATIONS.

 - Continue maintenance of intertie microwave system.
 Improved radio repair facility.
 Annual inspection and maintenance of all mobile and portable radios.
 Provide reimbursable cost effective repair service to other utilities.
- 6. PROVIDE COST EFFECTIVE FACILITY MAINTENANCE UTILITY WIDE.
 - Annually inspect facility heating and cooling system.Improve efficiency of facility contracts.Continued building maintenance.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	POWER MANAGEMENT	1988.

POWER MANAGEMENT DIVISION

Manages and executes economic dispatch and control of ML&P generation, scheduling and control of electrical interchanges with other utilities, control and switching of the transmission and distribution facilities.

Administrative Section

Performs administrative and support duties to achieve divisional objectives.

Dispatch Section

Schedules and controls generation and power interchanges, controls and switches transmission and distribution facilities.

MUNICIPALITY OF ANCHORAGE

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	POWER MANAGEMENT	1988

- 1. OPERATE CONTINUOUS LINE AND GENERATION DISPATCH CENTER.
 - Dispatch for system safety and reliability.
 Improve economic selection of generation.
 Improve centralized control of generation.
- ACT AS SOUTHERN AREA CONTROLLER FOR ALASKA INTERTIE.
 - ° Coordinate interchange schedules of AEGT, CEA, MEA & HEA.
 - ° Continue to develop and improve operating procedures.
 - Develop area-wide outage restoration contingency plans.
- PROMOTE WHOLESALE POWER TRANSACTIONS.
 - ° Negotiate power sales and interchange agreements with other utilities.
 - ° Computerize accounting and billing of wholesale power transactions.
- IMPROVE DISPATCHER PROFICIENCY.
 - ° Conduct familiarization visits to other dispatch centers.
 - * Utilize UAF and GVEA facilities for outage simulation training.
 - * Develop dynamic simulator.
- ASSUME RESPONSIBILITY FOR REMOTE OPERATION OF EKLUTNA POWER PROTECT.

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	SYSTEMS AND COMMUNICATIONS	1988

SYSTEMS AND COMMUNICATIONS DIVISION

Provides decentralized, cost effective data processing and communication resources to each ML&P Division.

Administrative Section

Under the direction of the Division Manager provides administrative support to the Division.

Computer Operation Section

Provides all aspects of hardware maintenance, operation, and user assistance. Completes nightly scheduled processes. Ensures data integrity and system security.

Billing/Finance Programming Section

Provides analysis, design, development, maintenance and support for all Divisions requiring billing and financial information.

CPRMS Programming Section

Provides analysis, design, development, maintenance, and support of the continuing property record, inventory and resource management systems.

Payroll/FIS Programming Section

Provides analysis, design, development, maintenance and support of the payroll and outage systems. Will provide analysis and support for the projected accounting system.

MUNICIPALITY OF ANCHORAGE

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER	SYSTEMS AND COMMUNICATIONS	1988 .

- 1. MAINTAIN COMPUTER SYSTEM SECURITY TO ENSURE DATA INTEGRITY.
- 2. PROVIDE MAINTENANCE TO OPERATIONAL SYSTEMS.
- 3. PROVIDE ENHANCEMENTS TO OPERATIONAL SYSTEMS.

 - Inventory applications.
 Continuing Property Records System.
 Billing/Accounts Receivable Sub-systems.
- 4. INCREASE COMPUTER SYSTEM AVAILABILITY FOR USER INQUIRY.
- 5. IMPLEMENT AN MILEP FINANCIAL INFORMATION SYSTEM.
- CONTINUE DEVELOPMENT OF SYSTEMS TO SUPPORT RESOURCE MANAGEMENT ACTIVITIES.
- 7. PROVIDE SUPPORT IN THE DEVELOPMENT OF A STATE-OF-THE-ART RECORDS MANAGEMENT SYSTEM.
- 8. UPDATE LONG-RANGE DATA PROCESSING PLAN.

Utility MUNICIPAL LIGHT & POWER		Division					Budget Year 1988
			WORKFORCE	PROJECTIONS	3		
DIVISIONS	1987 Revision	<u> 1988</u>	<u> 1989</u>	1990	<u>1991</u>	1992	<u>1993</u>
ADMINISTRATION	12	11	12	13	13	14	15
SYSTEMS & COMMUNICATIONS	13	13	13	14	15	16	17
PRODUCTION	46	44	44	44	44	44	44
CUSTOMER SERVICE	39	38	39	39	39	39	39
FINANCIAL SERVICES	18	17	22**	23	24	25	25
POWER MANAGEMENT	10	10	11	11	11	11	11
OPERATIONS	59	55	57	59	59	61	61
ENGINEERING	. 32	_27	<u>27</u>		28	_29	_29
SUB-TOTAL	<u>229</u>	215	<u>225</u>	<u>231</u>	<u>233</u>	<u>239</u>	241
NECA Summer Temps		21	21	21	21	21	21
SUMMER STUDENT TEMPS.	2	2	_2	3	3	4	4
TOTAL	<u>231</u> ***	<u>238</u>	248	<u>255</u>	<u>257</u>	<u> 264</u>	<u> 266</u>
* Assuming elimination of day la ** Includes five (5) positions fo		dger System	person	mel and 17	utives, 50 1 IBEW pers 11ocation n	onnel. 19	88 labor

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER		1988

PLANNING ASSUMPTIONS

The following assumptions have been used in developing ML&P's 1988 - 1993 long-range plans. They have been developed from the best data available at this time.

- 1. Customer growth for 1988 will be minimal.
- 2. Fuel costs will remain constant for 1988.
- 3. No overall payroll increases planned for 1988.
- 4. No benefit increases for 1988.
- 5. No personnel increases in the 1988 budget.
- 6. Intra-governmental charges to utility will decrease by 4.5% in 1988 and thereafter remain constant.
- 7. Expenses excluding labor will be increased by a 4% inflation factor.
- 8. Revenue bond interest will be 8.5% for 30 year bonds.
- 9. ML&P's interest income will be based on 5.25% short-term and 10.5% long-term.
- 10. Using financial modeling to project future rates, calculations will be made assuming no less than a 1.6 debt service cover.
- 11. Purchase of Eklutna not included in budget.
- 12. Utility will not pay a revenue distribution.
- 13. Cost for maintenance will increase as net plant gets older.
- 14. Long-term viability of the Anchorage economy.

llity	Division		Budget Yea
MUNICIPAL LIGHT & POWER			1988
	RECONCILIATION FROM 1987 REVISED TO 1988 BUDGET		
		COST	POSITIONS
1987 Revised Budget	\$	66,028,000	
Reconciliation			
1. Personnel Cost		(911,910)	(14)
2. Professional Services		2,720	
3. Travel Restricted to Highly Just	cified Trips	(16,700)	
4. Depreciation Reflects Additional	L Plant Added in 1988	552,500	
5. Interest Expense Reduces Because No New Bonding	e of Principal Payments and	(91,300)	
6. MUSA Increase Reflects Higher Pl Increases	lant Value, and Mill Rate	333,000	
7. IGC Charges Are Reduced to Refle General Government, Elimination and Reduction of Insurance From	of Public Utility Affairs	(312,220)	
8. All Other Expenses Increase to I Inflation Factor for supplies,	Reflect a 4% General equipment, parts, etc.	262,910	
Total	*	(181,000)	
1988 Proposed Budget	\$	65,847,000	

Utility	Di	vision			Budget Year
MUNICIPAL LIGHT & POWER					1988
	<u>P</u>	ROJECTED RATE	ADJUSTMENTS		-
	1988	1989	1990	1991	1992
Additional Revenue Required*	6.9 %	6.4 %	7.4 %	3.4 %	3.8 %
COMPONENTS OF ADJUSTMENT					
Fuel	-0-	2.47%	2.11%	. 48%	.84%
DSC Improvements	6.94 %	2.13%	2.90%	1.34%	1.4 %
CEA Fixed Payment Reduction**	.88 %	.82%	.77%	-0-	-0-
All Other***	(.92)%	.98%	1.62%	1.58%	1.56%
			•		
ACTUAL RATE ADJUSTMENT	11.6%**** \$41.20	6.4% \$43.84	7.4% \$47.08	3.4% \$48.68	3.8% \$50.53

Includes projected fuel increases, which occur through the Cost of Power Adjustment and do not require a rate case for implementation.

^{**} As part of the Contract with CEA, they pay a portion of the fixed cost of generating Unit #8. This payment decreases each year until 1991.

^{***} This item includes a 4% inflation factor of supplies, materials, parts, and contracts, and the planned reduction in work force in 1988.

^{****}Actual rate adjustment (11.6%) differs from revenue required (6.9%) due to timing of rate increases. The 11.6% will be effective only during a portion of the year, thus reducing the total actual revenues to an approximate 6.9% increase. Increases are based on a current average monthly billing of \$37.82, calculated on an average useage of 500KWH.

Utility MUNICIPAL LIGHT & POWER	Divi	sion				_	t Year
		KEY FINANC	IAL RATIOS				
					,		
RATIO	1983	1984	<u>1985</u>	1986	1987	<u>1988</u>	
Current Ratio	.77/1	1.09/1	2.1/1	2.8/1	2.9/1	2.8/1	
Long Term Debt/Gross Plant	89.3/1	86.1/1	90.95/1	98.7/1	97.6/1	91.1/1	
Debt/Equity Ratio	.81/19	81/19	83/17	93/7	94/6	94/6	
Operating Ratio Controllable Cost	66.2/1	60.0/1	63.0/1	65.1/1	63.1/1	58.7/1	
OPERATING STATEMENT							
Rate of Return	5.7 %	8.7 %	8.5 \$	7.9 % .	7.5 %	9.5	ž.
Bond Debt Coverage	1.6	1.59	1.47	1.47	1.38	1.60	
Operating Margin	18.4 %	25.1 %	22.0 %	19.9 \$	20.2 %	24.5	ž
Net Profit Margin	1.8 %	6.2 %	(1.7)%	(1.5)%	(3.0)%	2.4	%

Utility		Division					Budget Year
MUNICIPAL LIGHT & POWER							1988
,		STATISTIC	CAL AND PERI	FORMANCE TR	ENDS		
	1982	1983	1984	1985	1986	1987	1988
Average Number of Customers*	17,977	19,045	21,932	30,558	30,317	30,600	30,600
Retail Sales (MWH)	611,017	636,818	670,030	798,736	817,214	792,698	793,000
Resale (MWH)**		15,970	22,058	182,045	170,095	46,000	46,000
Total Sales (MWH)	611,017	652,818	692,088	980,781	987,309	838,698	839,000
Total Operating Expenses (000)	\$ 26,590	\$ 36,062	\$ 42,866	\$ 60,645	\$ 68,363	\$ 66,028	\$ 65,847
Operating Expense per Kilowatt Hour	4.4¢	5.5¢	6.2¢	6.2¢	6.9¢	7.8¢	7.8¢
% Change	0%	25%	12.7%	0%	11.3%	13.0%	0%
Operating Expense per Customer	\$ 1,479	\$ 1,893	\$ 1,954	\$ 1,998	\$ 2,255	\$ 2,157	\$ 2,151
% Change	2.0%	27.9%	3.2%	2.2%	12.8%	(4.3%)	(.3)%
Number of Employees (Actual at Year End)	131	149	182	206	213	218	204
Customers per Employee	137	128	120	147	142	140	150
Electric Plant in Service (000)	\$ 84,782	\$ 96,444	\$141,100	\$150,559	\$ 155,820	\$157,000	\$159,000
Electric Plant per Customer	\$ 4,716	\$ 5,064	\$ 6,434	\$ 4,926	\$ 5,139	\$ 5,130	\$ 5,196

6-29

Number of Billings Processed Shown in 1987 and Later Years
Only projecting sales to CEA and not economy energy sales because of the instability of such sales and
because net income from economy energy sales flows through to retail consumers

ility		Division			Budget Ye
MUNICIPAL LIGHT & POWER					1988
		RESOURCE IMPACTS	3		
	1988	1989	1990	1991	1992
Growth Factors					
Billings	30,600	30,600	30,600	30,900	31,200
KWH Sales Retail (MWH)	793,000	793,000	796,660	800,641	808,646
KWH Sales for Resale (MWH)**	46,000	50,000	20,000	-0-	-0-
Bond Sales (000)	-0-	\$ 11,281	\$ 10,307	\$ 9,106	\$ 8,002
Personnel Increases					
Management	(1)	1	1	. 0	1
Systems & Communication	0	0	1	1	1
Production	(2)	0	1	0	0
Customer Service	(1)	1 -*	0	0	0
Financial Services	(1)	5*	1	0	1
Power Management	0	1	0 2	0	2 0
Operations	(4)	2 0	1	0	1
Engineering	<u>(5)</u>			<u></u>	
Total	(14)	10	7	2	6
REVENUE (000)	67,033	70,760	74,026	76,300	79,697
EXPENSE (000)	65,847	69,387	72,050	74,168	77,322
NET INCOME (000)	1,186	1,373	1,976	2,132	2,375
Possible Revenue Increases					~ 0#
(Rates)	6.9%	6.4%	7.4%	3.4%	3.8%
Projected DSC 1987 = 1.38	1.60	1.66	1.73	1.77	1.82

^{*} Positions required for development and support of General Ledger System.
** Only projecting sales to CEA and not economy energy sales because of the instability of such sales and because net income from economy energy sales flows through to retail consumers.

Utility Di	Division	Budget Year
MUNICIPAL LIGHT & POWER		1988

1988 BUDGET IMPACTS

OPERATING

- 1. The interim and permanent rate increase will average 6.9% and will be in effect January 1, 1988, to produce the targeted 1.60 Debt Service Cover and a positive bottom line. At this increased rate level, rates are still lower than in the second half of 1986.
- 2. With leveling of load growth, expense increases will be minimal.
- 3. 4% Inflation increases in 1988 will again become a factor in expense increases.
- 4. Interest expenses will decrease, as no new bond sales are anticipated for 1988.
- 5. Budget for 1988 anticipates continuing existing services even with a reduction in manpower.

CAPITAL

- 1. Capital program has been reduced to reflect the most recent load growth forecast.
- 2. System improvements will be accomplished only where deemed necessary through engineering and economic evaluation.
- 3. Efforts will be made to minimize bonding for capital improvements.
- 4. Availability of funds and load growth will dictate the capital program in the next few years.

Utility MUNICIPAL LIGHT & POWER	Division		Budget Year			
Municipality of Anchorage Financial Data						
Line Item Description	Year: 1986 Actual	Year: <u>1987</u> Pro-Forma	Year: <u>1988</u> Budget			
STATEMENT OF REVENUE AND EXPENSES						
OPERATING REVENUES 4400-Residential Sales 4420-Commercial & Industrial 4440-Public Highway & Street Lighting 4450-Public Authority 4470-Sales For Resale 4510-Misc. Service Revenue 4540-Rent From Electric Property 4560-Miscellaneous Revenue Total Operating Revenue * Reflects Only Sales to CEA OPERATING EXPENSE Production Expense Distribution Expense Customer Account Expense Customer Account Expense Customer Service & Information Administrative & General Expense 9403-Depreciation 9404-Depreciation Contributed Plant	\$ 13,322,222 41,771,427 1,464,919 384,325 6,662,996 173,971 106,264 -0- \$ 63,886,124 \$ 27,853,375 359,853 5,929,863 3,283,455 160,646 2,995,411 8,928,979 251,286	\$ 12,948,037 42,284,775 1,273,115 390,438 3,332,307* 191,092 76,000 10,000 \$ 60,505,764 \$ 23,137,100 434,000 5,668,100 3,595,300 269,400 3,548,300 9,451,000 330,000 307,800	\$ 13,835,000 45,209,000 1,352,000 418,000 2,828,000* 150,000 66,000 5,000 \$ 63,863,000 \$ 22,949,000 432,000 5,381,000 3,472,000 241,000 3,202,000 10,003,000 330,000 308,000			
9405-Amort. Intangible Plant 9406-Amort. Plant Acquisition 9408-Municipal Utility Service Assmt.	307,758 60,143 <u>1,024,755</u>	58,700 1,500,000	59,000 1,833,000			
Total Operating Expense	\$ <u>51,155,524</u>	\$ 48,299,700	\$_48,210,000 \$_45,653,000			
Operating Income	\$ 12,730,600	\$ 12,206,064	\$ 15,653,000			

Utility	Division		Budget Year			
MUNICIPAL LIGHT & POWER			1988			
Municipality of Anchorage Financial Data						
Line Item Description	Year: <u>1986</u> Actual	Year: <u>1987</u> Pro-Forma	Year: <u>1988</u> Budget			
NON-OPERATING REVENUE 4190-Interest 4191-Interest From Operating Reserve 4192-Interest From Bond Redemption Cash 4193-Interest From General Cash Pool 4194-Interest From Debt Service Account 4210-Misc. Non-Operating Revenue Total Non-Operating Revenue NON-OPERATING EXPENSE 9427-Interest on Bonded Debt 9428-Amortization of Bond Discount 9429-Amortization of Bond Sale Cost & Ins. 9431-Other Interest Expense Total Non-Operating Expense Non-Operating Income (Loss) Net Income (Loss) Add: Depreciation of Contributed Plant Net Income (Regulatory) Less: Depreciation of Contributed Plant Add: Restricted Interest Income	\$ 531 302,491 2,065,640 357,341 370,671 100,521 \$ 3,197,195 \$ 16,541,854 302,537 215,278 147,692 \$ 17,207,361 \$ (14,010,166) \$ (1,279,566) 251,286 \$ (1,028,280) (251,286) 1,108,932	\$	\$			
Net Income Governmental Financial Repo 1986 Loss of \$19,697,570 due to early extinguishment of debt not included	orting \$ (170,634)*	\$ (1,666,236)	\$ 1,536,000			

Utility POWER	Division		Budget Year			
MUNICIPAL LIGHT & POWER Municipality of Anchorage Financial Data						
Line Item Description	Year: 1986 Actual	Year: 1987 Pro-Forma	Year: <u>1988</u> Budget			
STATEMENT OF SOURCES AND USES OF CASH						
Sources of Cash Funds Net Income Depreciation Bond Proceeds Contributions Bond Refunding Total Sources of Cash Funds Uses of Cash Funds Additions to Plant Bond Principle/Debt Retirement Other Total Uses of Cash Funds Net Increase (Decrease) In Cash Funds Cash Balance January 1 Cash Balance December 31	\$ (170,633) 9,850,703 29,393,084 227,266 (19,697,578) \$ 19,602,842 \$ 14,809,316 1,425,000 842,156 \$ 17,076,472 \$ 2,526,370 \$ 44,388,979 \$ 46,915,349	\$ (1,936,236) 10,147,500 -0- -0- -0- \$ 8,211,264 \$ 13,500,000 1,505,000 -0- \$ 15,005,000 \$ (6,793,736) \$ 46,915,349 \$ 40,121,613	\$ 1,516,000 10,700,000 -0- -0- -0- \$ 12,216,000 \$ 14,500,000 1,600,000 -0- \$ 16,100,000 \$ (3,884,000) \$ 40,121,613 \$ 36,237,613			
DETAIL OF CASH BALANCE Equity in General Cash Pool Equity in Construction Cash Pool Revenue Bond Reserve Cash Total Cash Balance December 31	\$ 12,644,725 13,589,882 20,680,742 \$ 46,915,349	\$ 15,850,989 3,589,882 20,680,742 \$ 40,121,613	\$ 15,556,871 -0- 20,680,742 \$ 36,237,613			
TOTAL OASH DAXANCO DOSSES. 3.						

MU. JPALITY OF ANCHORAGE

Utility MUNICIPAL LIGHT & POWER	Division		Budget Year 1988								
Municipality of Anchorage Financial Data											
Year: 1986 Year: 1987 Year: Line Item Description Year: Actual Pro-Forma Bu											
STATEMENT OF CHANGES IN FUND EQUITY Balance January 1 Net Income (Loss) Other Balance December 31 Detail of Fund Equity Retained Earnings Contributed Capital Total Fund Equity December 31	\$ 35,140,249 (170,633) (19,470,312)* \$ 15,499,304 \$ 9,406,453 6,092,851 \$ 15,499,304	\$ 15,499,304 (1,936,236) 225,000 \$ 13,788,068 \$ 7,470,217 6,317,851 \$ 13,788,068	\$ 13,788,068 1,516,000 226,000 \$ 15,530,068 \$ 8,986,217 6,543,851 \$ 15,530,068								
* Bond Refunding											

.111ty D	tvision	Budget Year
MUNICIPAL LIGHT & POWER		1988
NET PROFIT MARGIN		•
NOT I NOT I TIMICIN	<u>1986</u> <u>1987</u> <u>1988</u>	
Net Income Governmental Reporting	\$ (170,632) \$ (1,666,23) \$ 1,536,000	
Operating Revenues	\$ 67,083,319 \$ 63,761,764 \$ 67,033,000	
Net Profit Margin Governmental Reporti	ing (.25%) (2.6%) 2.29%	
Net Income Regulatory	\$ (1,028,278) \$ (1,936,236) \$ 1,516,000	
Operating Revenues	\$ 67,083,319 \$ 63,761,764 \$ 67,033,000	
Net Profit Margin Regulatory	(1.5%) (3.0%) 2.26%	

N. CIPALITY OF ANCHORAGE

Division			Budget Year							
			1988							
Municipality of Anchorage Financial Data										
Line Item Description Year: 1986 Actual Pro-Forma										
\$ 25,47	75,964	\$ 25,609,564	\$ 29,523,000							
\$ 17,29	96,854	\$ 18,455,674	\$ 18,451,988							
	1.47	1.38	1.60							
		·								
	Municipality of Anche Financial Data Year \$ 25,4	Municipality of Anchorage Financial Data Year: 1986 Actual \$ 25,475,964 \$ 17,296,854	Municipality of Anchorage Financial Data Year: 1986 Year: 1987 Pro-Forma \$ 25,475,964 \$ 25,609,564 \$ 17,296,854 \$ 18,455,674							

Utility		Division			Budget Year
MUNICIPAL LIGHT & POWER					1988
	(actual)	OPER	ATING BUDGET		
EXPENSE ITEMS	1984	1985	<u> 1986</u>	<u>1987</u>	<u>1988</u>
Personnel Costs	\$ 6,229,070	\$ 8,211,430	\$ 8,707,881	\$ 9,510,610*	\$ 9,023,000 ^{##}
Benefit Costs	2,661,400	4,142,513	4,240,417	4,755,300	4,331,000***
Professional Services	335,200	361,036	377,154	397,280	400,000
Travel	98,960		157,412	69,700	53,000
Depreciation and Amortization	6,110,813		9,548,166	10,147,500	10,700,000
Interest	12,286,255		17,207,361	17,728,300	17,637,000
MUSA	678,860		1,024,755	1,500,000	1,833,000
Sub Total	\$ 28,400,558	\$ 38,394,597	\$ <u>41,263,146</u>	\$ 44,108,690	\$ <u>43,977,000</u>
Intergovermental Charges					
Finance Department	\$ 396,079		\$ 544,765	\$ 524,950	\$ 743,000
Information Systems Department	18,115		13,553	131,570	6,000
Public Utilities Admin.	192,793	192,409	200,460	224,670	-0-
Public Utilities Customer					_
Service	248,921	257,146	216,451	-0-	-0-
Public Utilities Credit and					
Collections	676,357		674,345	0-	-0-
Human Resources Department	96,356		151,072	154,410	161,000
Self Insurance		460,690	830,600	850,000	681,000
Other Intergovernmental Charges	241,591		<u>229,838</u>	283,620	266,000
Sub Total IGC	\$ 1,870,212	\$ 2,653,005	\$ 2,861,084	\$ 2,169,220	\$ 1,857,000
Purchased Power	\$ 1,392,022	2 \$ 1,552,833	\$ 1,423,851	\$ 1,552,000	\$ 1,552,000
Fuel	11,055,992		22,182,030	17,400,000	17,400,000
Other Expenses	559,431		632,771	798,090	1,061,000
TOTAL EXPENSES	\$ <u>43,278,215</u>	\$ 61,783,613	\$ <u>68,362,882</u>	\$ <u>66,028,000</u>	\$ <u>65,847,000</u>

Includes labor costs shown in Credit & Collections & Public Utility Customer Service in previous years.
Includes planned reduction in work force and a wage freeze for 1988.

^{***} Based upon an overall targeted 2% Municipal average benefit reduction. Individual departments actual benefits will vary from the average.

MUNICIPALITY OF ANCHORAGE

Utility	Division	Budget Year
MUNICIPAL LIGHT & POWER		1988 ·

1988 CAPITAL IMPROVEMENT BUDGET FINANCIAL SUMMARY

PROJECT TITLE	TOTAL PROJECT COST 1988	REVENUE BOND	G. O. BONDS	OPERATIONS	STATE GRANT	FEDERAL GRANTS
Steam Production	65	0	0	65	0	0
Other Production	2,674	0	0	2,674	. 0	0
Transmission	100	0	0	100	0	0
Distribution	6,451	2,760	0	3,691	0	0
General Plant	3,170	0	_0	3,170	_0	_0
TOTAL (000)	12,460*	2,760*	0	9,700	0	0

^{*} Includes accrued interest on capital funds

BUDGET YEAR PROJECTS Utility MUNICIPAL LIGHT AND POWER								
				Fun	ding (000)			
Project Category	Project Title	Location			Grants F-Federal S-State	Total		
Steam Production	Structures and Improvements	Plant 1 & 2	~ 0-	5	-0-	5		
	Boilers	Plant 1 & Ż	-0-	60	-0-	60		
			·					
			-0- G		-0- F			
Prepared by QE.TA	ushous S. Date	e 6/17/87 Total	-o- R	65	-o- S	65		

Utility MUNICIPAL L	IGHT AND POWER	BUDGET YEAR PRO	DJECTS			Budget Year 1988
				Fund	ding (000)	
Project Category	Project Title	Location	Bonds G-GO Bonds R-Rev Bonds	Operations	Grants F-Federal S-State	Total
Other Production	Structures and Improvements	Plant 1 & 2	-o <u>-</u>	230	-0-	230
	Fuel Handling and Storage	Plant 1 & 2	-0-	-0-	-0-	-0-
	Turbines and Generators	Plant 1 & 2	~0~	1,583	-0-	1,583
	Control Equipment	Plant 1 & 2	-0-	841	-0-	841
	Misc. Equipment	Plant 1 & 2	-0-	20	-0-	20
					,	,
Prepared by Q.E.Tn	ushnish Date	6/17/87 Total	-o- G -o- R	2,674	-0. F -0. S	2,674

Utility MUNICIPAL LI	GHT AND POWER	BUDGET YEAR PR	OJECTS			Budget Year 1988		
				Funding (000)				
Project Category	Project Title	Location	Bonds G-GO Bonds R-Rev Bonds	Operations	Grants F-Federal S-State	Total		
Transmission	Relocations	State Roads	-0-	50	-0-	50		
	·	Municipal Roads	-0-	50	-0-	50		
		TO COLUMN TO COL				,		
		THE CONTROL OF THE CO						
·								
			-0- G		-0- F			
Prepared by QE Tau	skors! Date	6/17/87 Total	-0- R	100	-0- S	100		

MUN.__PALITY OF ANCHORAGE

Utility MUNICIPAL LIG	HT AND POWER	BUDGET YEAR PRO)JECTS			Budget Year 1988
				Fund	ding (000)	
Project Category	Project Title	Location	Bonds G-GO Bonds R-Rev Bonds	Operations	Grants F-Federal S-State	Total '
Distribution	Land & Land Rights	Easements & Substation Sites	-0-	600	-0-	600
	Station Equipment	Substation	420-R	531	-0-	951
	Overhead Lines	Throughout System	100-R	75	- 0-	175
	Underground Lines	Throughout System	1,690-R	995	. 0-	2,685
	Conversions	CBD	550-R	-0-	- 0-	550
	Relocations	State Roads	-0-	800	-0-	. 800
		Municipal Roads	-0-	100	-o	100
	Transformers/ Capacitors	Throughout Systems	- 0-	250	. 0-	250
	Meters/Services	Throughout Systems	- 0-	240	-0-	240
	Street Lighting	Throughout System	-0-	100	-o-	100
	1		-0- G		-o- F	
ed by J.E. Tru	ushous Date	6/17/87 Total	2,760 R	3,691	-o-S	6,451

BUDGET YEAR PROJECTS Utility MUNICIPAL LIGHT AND POWER								
				Fun	ding (000)			
Project Category	Project Title	Location	Bonds G-GO Bonds R-Rev Bonds	Operations	Grants F-Federal S-State	Total		
General Plant	Structures and Improvements	Plant 1, 2, Operations & Headquarters	- 0-	1,468	-0-	1,468		
	Stores/Tools Garage/Lab	Plant 1, 2, Operations & Headquarters	-0 -	409	-0-	409		
	Furniture/ Communications	Plant l, 2, Operations & Headquarters	<u>-</u> 0-	1,130	-0-	1,130		
	Transportation	Plant 1, 2, Operations & Headquarters	-0-	163	-0-	163		
		. •	-0- G		-0-F			
Prepared by STru	shoust. Date	6/17/87 Total	-0-R	3,170	-0-\$	3,170		

Utility				Div	sion						Budget	Year
MUNICIPAL	LIGHT AND	POWER									1988	,
	,				M 11 1							···
					CT	B/CIP						
						8-1993						
								ODER	S. M. M. T.	DDDDDA		
PROJECT TITLE	1988	1989	<u>1990</u>	<u>1991</u>	1992	1993	BONDS	OPER- ATIONS	STATE GRANTS	FEDERAL GRANTS	TOTAL	
Steam Production	65	25	275	510	10	-0-	820	65	-0-	-0-	885	
Other Production	2,674	3,855	4,725	5,541	2,624	3,265	18,831	3,853	-0-	-0-	22,684	
Transmission	100	1000	120	120	140	140	900	720	-0-	-0-	1,620	
Distribution	6,451	8,133	6,555	4,430	6,890	4,510	27,088	9,881	-0-	-0-	36,969	
General Plant	3,170	3,165	1,618	1,744	1,664	2,348	-0-	13,709	0-	-0-	13,709	
Total (000)	12,460	16,178	13,293	12,345	11,328	10,263	47,639	28,228			75,867	
	•											
SOURCE OF FUNDING	: :											
Revenue Bonds	2,760	11,281	10,307	9,106	8,002	6,183					47,639	
Operations	9,700	4,897	2,986	3,239	3,326	4,080					28,228	
TOTAL FUNDING (000)	12,460	16,178	13,293	12,345	11,328	10,263					75,867	
							, . .					

Utility MUNICIPAL LI	GHT AND POWER	FUTURE CAPITAL PROJEC	TS			Bud	get Year 1988		
Project Category	Project Title	Location		BUDGET BY YEAR (000)					
			1989	1990	1991	1992	1993		
Steam Production	Structures and Improvements	Plant 1 & 2	15-R	115-R	400-R	-0-	- 0-		
	Boilers	Plant 1 & 2	10-R	160-R	110-R	10 - R	-0-		
·									
							,		
						-	·		
	Source of Fu								
•		Revenue Bonds	25	275	510	10	-0-		
		Operations							
		State Grants							
0 -	0 0 -	Federal Grants							
Prepared by JE TA	ushinst Date 6	/17/87 Total	25	275	510	10			

Utility MUNICIPAL LI	IGHT AND POWER	FUTURE CAPITAL PROJECT	S			Bud	get Year 1988
Decises Category	Project Title	Location	BUDGET BY YEAR (000)				
Project Category			1989	1990	1991	1992	1993
Other Production	Structures and Improvements	Plant 1 & 2	335-R	390-R	240-R	250-r	250 - R
	Fuel Handling and Storage	Plant 1 & 2	-0-	50-R	1,550~R	-0-	1,250-R
	Turbines and Generators	Plant 1 & 2	1,608-R 200-0	2,587-R 180-0	2,756-R 185-O	1,802-R 185-0	1,543-R 185-0
	Control Equipment	Plant 1 & 2	1,660-R 32-0	1,460-R 33-O	750−R 35~O	350-R 37-0	-0- 37-0
	Misc. Equipment	Plant 1 & 2	20-0	25-0	25 - 0	-0-	-0-
							#
	Source of Fu	unding: G.O. Bonds					
		Revenue Bonds	3,603	4,487	5,296	2,402	3,043
		Operations	252	238	245	222	222
		State Grants					
	•	Federal Grants					
Prepared by A.E. Tru	ushnust Date 6	/17/87 Total	3,855	4,725	5,541	2,624	3,265

Utility MUNICIPAL LI	GHT AND POWER	FUTURE CAPITAL PROJECTS	S				g et Year 1988	
Desirat Catagoni	Project Title	Location	BUDGET BY YEAR (000)					
Project Category			1989	1990	1991	1992	1993	
Transmission	Station Equipment	Along Transmission System	300-R	-0-	-0-	-0-	-0-	
	Conversions	Along Transmission System	600-R	-0-	0-	-0-	-0-	
	Relocations	State Road Relocations	50 - 0	60-0	60-0	70-0	70-0	
	·	Municipal Road Relocations	50-0	60-0	60-0	70-0	70 <u>-</u> 0	
						·		
	Source of Fu	nding: G.O. Bonds Revenue Bonds						
		Operations	900 100	120	120	140	140	
		State Grants	100	120	120	140	130	
		Federal Grants						
Prepared by JE Tru	Date 6/		1,000	120	120	140	140	

Utility MUNICIPAL LI	GHT AND POWER	FUTURE CAPITAL PROJECTS	S			Bud	get Year 1988	
Desired Cotton	Project Title	Location	BUDGET BY YEAR (000)					
Project Category			1989	1990	1991	1992	1993	
Distribution	Land & Land Rights	New Substation Sites and Misc. Easements	25-0	25-0	25-0	25-0	25-0	
	Station Equipment	Substations and Plants	3,803-R	1,080-R	1,050-R	3,450-R	1,000-R	
	Overhead Lines	Throughout System	45-0	45-0 250-R	45-0	45 - 0	45'-0	
	Underground Lines	Throughout System	100-0 2,550-R	100-0 3,415-R	100-0 1,450-R	100-0 1,300-R	100-0 1,300-R	
	Distribution Conversions	Central Business District	300-R	600-R	600-R	600-R	600-R	
	Relocations	State Roads	350 - 0	120-0	130-0	140-0	150-0	
		Municipal Roads	110-0	120-0	130-0	140-0	150-0	
	Transformers/ Capacitors	Throughout System	300-0	400 - 0	500 - 0	650 - 0	700-0	
	Meters/Services	Throughout System	450-0	200 - 0	200-0	200-0	200-0	
	Street Lighting	Throughout System	100-R	200-R	200-R	240-R	240-R	
	Source of Fu	ınding: G.O. Bonds						
	17 W 140 7 14 14 1 14 1	Revenue Bonds	6,753	5,545	3,300	5,590	3,140	
		Operations	1,380	1,010	1,130	1,300	1,370	
		State Grants						
AND COMPANY OF THE CO		Federal Grants						
Prepared by QE. The	ushnol Date 6	7/17/87 Total	8,133	6,555	4,430	6,890	4,510	

tility MUNICIPAL LI	GHT AND POWER	FUTURE CAPITAL PROJECTS	S			Buc	iget Yea r 1988	
Project Category	Project Title	Location	BUDGET BY YEAR (000)					
			1989	1990	1991	1992	1993	
General Plant	Structures and Improvements	Plant 1, 2, and Headquarters Area	883-0	247-0	262 - 0	161-0	171-0	
<i>n</i>	Stores/Tools/ Garage/Lab	Plant 1, 2, and Headquarters Area	373-0	378-0	478 - 0	416-0	422 - 0	
**************************************	Furniture/ Communications	Plant 1, 2, and Headquarters Area	1,746-0	722 <u>-</u> 0	754 <u>-</u> 0	788 <u>-</u> 0	1,480-0	
	Transportation	Plant 1, 2, and Headquarters Area	163-0	271-0	250 <u>-</u> 0	299 - 0	275 <u>-</u> 0	
	Source of Fu	inding: G.O. Bonds						
		Revenue Bonds						
	र्व चा म	Operations State Grants Federal Grants	3,165	1,618	1,744	1,664	2,348	
Prepared by Q.E. Tau	usbust Date 6	/17/87 Total	3,165	1,618	1,744	1,664	2,348	