

MUNICIPALITY OF ANCHORAGE – CIP - 1
DEPARTMENT CAPITAL NEEDS ANALYSIS

Department	MUNICIPAL UTILITIES
Program Category	MUNICIPAL LIGHT AND POWER

POLICY GOALS

To provide the electrical energy requirements of present and future customers in the most economical manner, consistent with the requirements of safety, reliability, sound financial management, protection of the environment and reasonable regard for aesthetics.

SIX-YEAR DEPARTMENT GOALS AND STRATEGY

1. To develop or promote the development of long-term energy supplies which can be expected to yield minimal present and future energy costs.
2. To develop a reliable distribution system capable of safely supplying present and future needs consistent with stated Municipal aesthetic goals.
3. To achieve a sound financial position which will permit financing the required electric system on a continuing basis.
4. To achieve and maintain safety and reliability standards appropriate for our environment.
5. To continually review operating practices to insure they are conducive to the achievement of our goals.
6. To be responsive to our customers requirements in a fair and equitable manner.

PRIORITY CRITERIA

MUNICIPALITY OF ANCHORAGE – CIP - 2
 EXISTING CAPITAL BUDGET SUMMARY

Department MUNICIPAL UTILITIES
Project Category ML&P - GENERATION

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Oil' Fired Turbine Peaking Unit	6,500	20	Project deferred. Only action taken front ending for UPA permits.
Water Treatment Reverse Osmosis Unit	330	330	No action. Awaiting status of Water and Waste Water Utility requirements.
Future Coal or Hydro	3,000	-0-	Deferred pending anticipated joint effort with Alaska Power Authority and Environmental studies.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER PROJECT CATEGORY: GENERATION

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	172	335	279	194	90	80	1,140		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	3,243	2,655	4,035	1,607	1,510	1,860	14,910		
EQUIPMENT	1,805	10,470	5,986	2,429	1,910	2,310	24,910		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	5,220	13,460	10,300	4,230	3,500	4,250	40,960	0	40,960

SOURCE OF FUNDS							TOTAL	REIMBUR	NON-REIM
							FUNDS	SABLES	BURSABLES
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	5,220	13,460	10,300	4,230	3,500	4,250	40,960		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0	0	
OTHER	0	0	0	0	0	0	0	0	
TOTAL	5,220	13,460	10,300	4,230	3,500	4,250	40,960	0	40,960

MUNICIPALITY OF ANCHORAGE - CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600								
Program Category MUNICIPAL LIGHT AND POWER		Project Category GENERATION								
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS	
	1983	1984	1985	1986	1987	1988				
THOUSANDS OF DOLLARS										
Major Improvements & Parts Turbines and Boilers	1,335	1,260	880	1,610	1,000	1,250	7,335			
Oil Fired Turbine Peaking Unit		9,500	5,500				15,000			
Deicing System	50						50			
Black Start Unit - Plant #2	1,000						1,000			
Future Coal or Hydro		1,000	1,500	2,000	2,500	3,000	10,000			
Steam Driven Boiler Feed Pumps	75						75			
Steam Driven Circ. Pumps			50				50			
Direct Fire #5 Boiler		1,500					1,500			
New Controls #2,3,4, & 5 Turbine	100	100	120	120			440			
Synchronous Condensor			250				250			
Building Tie #5 Boiler to #6				500			500			
Storage (Above #7 Water Skid)	15						15			
2nd Municipal Water Pump	25						25			
CNG Demonstration Project	20						20			
Plant Security	100						100			
Emergency Fuel Storage - Plant #2	2,500						2,500			
Emergency Fuel Storage - Plant #1			2,000				2,000			
Fire Protection Systems		100					100			
TOTALS	5,220	13,460	10,300	4,230	3,500	4,250	40,960			

MUNICIPALITY OF ANCHORAGE - CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department	MUNICIPAL UTILITIES	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	GENERATION
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Major Improvements and Parts Turbines	<p>1. Reflects Boiler spare parts of 50,000 per year.</p> <p>2. Major improvements of turbines to insure reliability and extend useful machine life.</p> <p style="padding-left: 40px;">1983 Turbine #2 - 265,000 #6 - 330,000 #7 - 690,000</p> <p style="padding-left: 40px;">1984 Turbine #3 - 400,000 #5 - 400,000 #4 - 410,000</p> <p style="padding-left: 40px;">1985 Turbine #7 - 450,000 #1 - 380,000</p> <p style="padding-left: 40px;">1986 Boiler #5 - 780,000 #7 - 780,000</p> <p style="padding-left: 40px;">1987 Turbine #2 - 240,000 #5 - 470,000 #4 - 240,000</p> <p style="padding-left: 40px;">1988 Turbine #3 - 250,000 #6 - 300,000 #8 - 650,000</p>		
Oil Fired Turbine Peaker	<p>Additional generation capacity to insure reliable service during peak usage periods. Purchase of this unit may be deferred depending on the status of other power sources such as the Fairbanks Intertie or a formal intertie agreement with other utilities in the area.</p>		
Deicing System	<p>Insure reliable adequate intake air to Turbines 1, 2, & 3 during ice fog and icing conditions, heating must be instituted to insure continue operation.</p>		
Black Start Unit - Plant #2	<p>Provide reliable black start capability for Plant #2.</p>		

MUNICIPALITY OF ANCHORAGE - CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department	MUNICIPAL UTILITIES	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	GENERATION
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Future Coal & Hydro	Studies (engineering and/or consultants) to determine alternative power generation sources for load growth. Preparation of Federal and State permits required for future power plants prior to construction. Construction and generation plant estimated installation cost.		
Steam Driven Boiler Feed Pumps	Utilize steam to operate one boiler feed pump instead of electric with a savings payback of 4 years and to increase reliability.		
Steam Driven Circ. Pumps	Utilize steam to operate a circular water pump instead of electric with a savings payback of 4 years and to increase reliability.		
Direct Fire #5 Boiler	This modification to Unit #5 boiler will enable Unit #6 to run isolated from either gas turbine, providing Municipal Light and Power an additional 15 minutes of firm power without the installation of new generating equipment.		
New Controls #2,3,4, & 5 Turbines	Replace operating controls on turbine to increase starting and operations reliability of older unit with obsolete and troublesome control system.		
Synchronous Condensor	This modification would be made to Unit #1 and could be expanded to Units #2 and #3. It would provide 10,000KVR's capability per machine. Fuel reduction would pay for the modification in 3 years of operation. This modification will reduce reliable starting time to 10 minutes (on lines) and provide better system reliability during disturbances.		
Building Tie #5 Boiler to #6	Provide necessary control room space at Plant #2 permanent building for waste water treatment area, reverse osmosis building, parts storage and work area.		
Storage (Above #7 Water Skid)	Provide steel deck for storage of turbine spare parts and filters necessary for turbine operation.		
2nd Municipal Water Pump	Provide additional cooling, reducing water loss and help alleviate icing of cooling tower during winter operation.		
CNG Demonstration Project	Minimum program to test applicability and advantages of compressed natural gas to operate vehicles (one small cascade type filling station and 3 to 5 vehicles and pieces of equipment).		

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category GENERATION	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Plant Security		Provide security system including alarms, cameras and entry control to Plant #1 and Plant #2.	
Emergency Fuel Storage - Plant #2		Provide additional fuel storage at Station #2 to cover natural gas curtailment.	
Emergency Fuel Storage - Plant #1		Provide additional fuel storage at Station #1 to cover natural gas curtailment.	
Fire Protection System		To upgrade fire protection systems to industry standard and correct code deficiencies at Station #1 and #2.	

MUNICIPALITY OF ANCHORAGE – CIP - 2
 EXISTING CAPITAL BUDGET SUMMARY

Department MUNICIPAL UTILITIES
Project Category ML&P - TRANSMISSION - PLANT

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Substation 115KV Yards	590	634	Conversion of substations to 115KV planned for 1983.
Transmission Relaying	230	775	Upgrades and finalization of the 115KV relaying as the 115KV system is completed and expanded.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER PROJECT CATEGORY: TRANSMISSION - PLANT

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	30	30	60	20	20	20	180		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	60	50	140	20	20	20	310		
EQUIPMENT	160	80	250	20	20	20	550		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	250	160	450	60	60	60	1,040	0	1,040

SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
	1983	1984	1985	1986	1987	1988			
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	250	160	450	60	60	60	1,040		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0	0	
OTHER	0	0	0	0	0	0	0	0	
TOTAL	250	160	450	60	60	60	1,040	0	1,040

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department		Account Code						BONDS		OTHER LOCAL	STATE OR FEDERAL FUNDS
MUNICIPAL UTILITIES		0531-8004-8600						<input type="checkbox"/> G.O.			
Program Category		Project Category						<input type="checkbox"/> REV			
MUNICIPAL LIGHT AND POWER		TRANSMISSION - PLANT									
PROJECT TITLE	TOTAL PROJECT COST										
	1983	1984	1985	1986	1987	1988					
THOUSANDS OF DOLLARS											
Transmission Relaying	150	60	60	60	60	60	450				
Plant #2 Switchyard Addition	100	100	390				590				
TOTALS	250	160	450	60	60	60	1,040				

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category TRANSMISSION - PLANT	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Transmission Relaying		Design and construction of generation and transmission protective and control relay systems required for existing and new 115KV lines. Study and design to be completed by consultant. Required to improve system reliability and protection.	
Plant #2 Switchyard Addition		Design and construction of transmission switchyard addition at Municipal Light and Power Generation Station 2.	

MUNICIPALITY OF ANCHORAGE - CIP - 2
EXISTING CAPITAL BUDGET SUMMARY

Department
MUNICIPAL UTILITIES

Project Category
ML&P - TRANSMISSION - LINES

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Relay Pilot Wire Construction	300	775	Beginning in 1982 and continuing in conjunction with 115KV system expansion. Should be complete by 1984.
Fort Richardson to Plant #1	70	414	R.O.W. is procured - substation to be built and fed from Plant 2 in 1982. Final line completed in 1983.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: TRANSMISSION - LINES

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	72	65	31	16	11	20	215		
LAND AND R.O.W.	164	233	17	20	22	40	496		
CONSTRUCTION	486	415	778	383	54	20	2,136		
EQUIPMENT	335	196	143	37	21	20	752		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,057	909	969	456	108	100	3,599	0	3,599

SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
	1983	1984	1985	1986	1987	1988			
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	1,057	909	969	456	108	100	3,599		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0	0	
OTHER	0	0	0	0	0	0	0	0	
TOTAL	1,057	909	969	456	108	100	3,599	0	3,599

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600							
Program Category MUNICIPAL LIGHT AND POWER		Project Category TRANSMISSION - LINES							
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988			
THOUSANDS OF DOLLARS									
Substation #16 to Substation #11	775						775		
Turbine #5 Line Underground	40	100					140		
Turbine #8 Underground Line to Switchyard		45	120				165		
Substation #17 Line Extension	133	421	326				880		
Various Line Construction	59	73	83	96	108	100	519		
Plant #2 to Substation #15	50	130					180		
Substation #18 Line Extension		140	440	360			940		
TOTALS	1,057	909	969	456	108	100	3,599		

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department	MUNICIPAL UTILITIES	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	TRANSMISSION - LINES
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Substation #16 to Substation #15	Design and construction of 115KV lines between Substation 16 and Substation 15 via Seward Highway and Northern Lights Boulevard. Includes easement acquisition and may include upgrading existing 34.5KV line.		
Turbine #5 Line Underground	Underground power lines from Generator #5 to the 115KV switchyard as required by plant expansion.		
Turbine #8 Underground Line to Switchyard	Design and construct new underground 115KV tie line between new Turbine #8 and existing 115KV switchyard.		
Substation #17 Line Extension	Design and construct 115KV line to provide power to new Substation #17 required by load growth.		
Various Line Construction	Minor line work required by easement, safety, and other regulatory requirements.		
Plant #2 to Substation #15	Construction of a short 115KV line to Substation 15 from Plant 2 to complete the 115KV Transmission Loop System.		
Substation #18 Line Extension	Design and construct 115KV line to provide power to new Substation #18 required by load growth.		

MUNICIPALITY OF ANCHORAGE - CIP - 2
 EXISTING CAPITAL BUDGET SUMMARY

Department MUNICIPAL UTILITIES
Project Category ML&P - DISTRIBUTION - PLANT

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
SCADA Remote Terminals	100	100	Materials to arrive July 1982 and be operational by August. Further requirements for remote terminal units have been identified and will extend this project into 1983.
New Fort Richardson Substation	160	325	Material now arriving - construction beginning late this fall continuing into 1983.
New Substation #11	250	860	To be built early this fall with minor related work continuing into 1983.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - PLANT

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	180	120	50	0	0	0	350		
LAND AND R.O.W.	40	330	300	0	0	0	670		
CONSTRUCTION	350	340	200	0	0	0	890		
EQUIPMENT	155	320	270	0	0	0	745		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	725	1,110	820	0	0	0	2,655	0	2,655
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	725	1,110	820	0	0	0	2,655		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	725	1,110	820	0	0	0	2,655	0	2,655

MUNICIPALITY OF ANCHORAGE - CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600							
Program Category MUNICIPAL LIGHT AND POWER		Project Category DISTRIBUTION - PLANT							
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988	<input type="checkbox"/> G.O. <input type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
New Fort Richardson Substation	280						280		
New Substation #17	90	820					910		
New Substation #18		90	820				910		
Remove Substation 6A, 7, 8, 12	150	130					280		
Voltage Protection Relays	35	35					70		
Underfrequency Loadshedding	60	35					95		
SCADA Remote Terminals	110						110		
TOTALS	725	1,110	820				2,655		

MUNICIPALITY OF ANCHORAGE - CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category DISTRIBUTION - PLANT	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Fort Richardson Substation		Design and construction of 10 MVA Substation in approximate area of Glenn Highway and Muldoon Road to supply 34.5KV power to military per pending contract.	
New Substation #17		Design and construction of a new 28 MVA Substation in the Bragaw - Debarr Avenue area as required to serve load growth.	
New Substation #18		Design and construction of a 5 MVA Substation in the vicinity of 1st Avenue and H Street to improve reliability and capacity on the west shoreline of the Anchorage Central Business District. Project involves installation of equipment formerly located at Substation #14.	
Remove Substation 6A,7,8, & 12		Conversion of existing 34.5KV lines to 115KV will result in the obsolescence of these small older substations which are presently served from the 34.5KV transmission system.	
Voltage Protection Relays		Design and installation of Substation Undervoltage Protection System to automatically interrupt power to customers when voltage is below allowable limits which may damage customer equipment.	
Under Frequency Load Shedding		Design and installation of underfrequency load shedding systems on substation feeder breakers as required to provide selective load shedding during periods of generation deficiency. This system will provide maximum reliability to critical loads such as Anchorage hospitals and airports while at the same time reducing the possibility of area wide blackout during turbine generator failure.	
SCADA Remote Terminal		Installation of remote microprocessor based terminal units at distribution substations as required to remotely control and supervise substation operation during underfrequency load shedding operation. These units will interface with a comprehensive computer controlled supervisory control and data acquisition which is anticipated to be expanded in the near future to significantly improve system reliability and reduce operating energy costs.	

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - 35 KV

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	115	132	118	150	161	164	840		
LAND AND R.O.W.	40	40	65	75	73	90	383		
CONSTRUCTION	765	863	852	950	1,050	1,066	5,546		
EQUIPMENT	410	440	425	465	520	490	2,750		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,330	1,475	1,460	1,640	1,804	1,810	9,519	0	9,519
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	1,330	1,475	1,460	1,640	1,804	1,810	9,519		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,330	1,475	1,460	1,640	1,804	1,810	9,519	0	9,519

**MUNICIPALITY OF ANCHORAGE – CIP - 4
CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY**

Department MUNICIPAL UTILITIES				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category DISTRIBUTION - 35KV					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988			
THOUSANDS OF DOLLARS									
Central Business District Improvements	470	530	420	490	544	510	2,964		
Central Business District Vault-Duct	600	660	730	800	880	880	4,550		
Dock Improvements	150	165	180	200	220	240	1,155		
Government Hill Improvements	110	120	130	150	160	180	850		
TOTALS	1,330	1,475	1,460	1,640	1,804	1,810	9,519		

**MUNICIPALITY OF ANCHORAGE – CIP - 5
CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY**

Department MUNICIPAL UTILITIES	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category DISTRIBUTION - 35KV
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
Central Business District Improvements	Conversion of large central business district loads from existing overloaded 4KV system to new 34.5KV system. On going project.
Central Business District Vault-Duct	Construction of concrete encased vault and duct systems in the Anchorage Central Business District to provide for the undergrounding of existing overhead facilities and the expansion of electric power capability in this growing area. Work during 1982 is to be completed in conjunction with the Anchorage Telephone Utility as required to reduce impact on the general public and reduce overall project costs. This is an ongoing project to provide a highly reliable underground electric power system in this core area.
Dock Improvements	Construction of a new 34.5KV distribution line in the Municipal Dock area as required to expand service capacity and reduce loading on the existing 4KV system. Expanded capacity is required to service fish freezing units in the area and to improve overall reliability.
Government Hill Improvements	Construction of a new 34.5KV distribution system in the Government Hill area as required to expand service and reduce loading of existing old 4KV system in this area.

MUNICIPALITY OF ANCHORAGE – CIP - 2
 EXISTING CAPITAL BUDGET SUMMARY

Department MUNICIPAL UTILITIES
Project Category ML&P - DISTRIBUTION - 12KV

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Convert Substation #10 to 12KV	230	230	Under construction but phase 4 of 4 will continue into 1983.
System Automation	180	180	Phase 1 of this project has slipped approximately 8 months, therefore, entire project will be delayed about 1 year.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - 12 KV

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	101	120	210	142	140	175	888		
LAND AND R.O.W.	29	38	119	60	70	85	401		
CONSTRUCTION	546	656	839	659	665	695	4,060		
EQUIPMENT	351	415	525	370	370	430	2,461		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,027	1,229	1,693	1,231	1,245	1,385	7,810	0	7,810
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	1,027	1,229	1,693	1,231	1,245	1,385	7,810		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,027	1,229	1,693	1,231	1,245	1,385	7,810	0	7,810

MUNICIPALITY OF ANCHORAGE - CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600							
Program Category MUNICIPAL LIGHT AND POWER		Project Category DISTRIBUTION - 12KV							
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988	<input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
Customer Line Extension	112	129	148	171	200	220	980		
Substation #17 Feeders		100	500				600		
Substation #11 Tie Lines	100	120	130	150	165	185	850		
Substation #18 Tie Lines			100	120			220		
Major Tie Line Improvements	275	300	330	370	400	440	2,115		
System Automation	200	220	245	280	320	350	1,615		
PCB Removal	230	240	110				580		
Central Business District Improvements	55	60	65	70	80	95	425		
Miscellaneous Improvements	55	60	65	70	80	95	425		
TOTALS	1,027	1,229	1,693	1,231	1,245	1,385	7,810		

MUNICIPALITY OF ANCHORAGE - CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category DISTRIBUTION - 12KV
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
Customer Line Extension	Design and construction of new distribution lines to serve new subdivisions and customers. Includes minor distribution line adjustment required by law.
Substation #17 Feeders	Design and construct new 12KV distribution lines from new Substation #17 as required by load growth.
Substation #11 Tie Lines	Design and construction of major 600 Amp 12KV tie lines between the new Substation #11 and surrounding substations as required to ensure distribution reliability.
Substation #18 Tie Lines	Design and construction of 200 Amp underground distribution lines from the proposed Substation #18 down K/L alley as required to improve reliability in the west area of the Central Business District.
Major Tie Line Improvement	Design and construction of substation major intertie improvements required to expedite load transfer during periods of equipment failure in order to reduce customer outage time and restoration labor costs.
System Automation	Initiate design and construction of a comprehensive distribution automation system to automatically monitor and control the operation of distribution facilities to improve system reliability, reduce energy losses and reduce outage duration and related labor costs. Project will involve installation of fault and potential sensing devices in new switch cabinets, which replace existing switch cabinets, and placement of automatic motor controlled switch operators on critical elements throughout the system. The eventual system will require microprocessor controlled terminal units at critical switching points to determine the location of faulted distribution lines and automatically act to isolate faulted sections and restore service to surrounding areas. The system will reduce outage duration, and minimize intensive labor costs involved in fault trouble shooting and restoration.

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category DISTRIBUTION - 12KV	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
PCB Removal		This project involves finding and removing PCB chemical substances in the ML&P system including costs related to identification, replacement, and disposal. PCB's are listed as a hazardous chemical substance by the EPA which has strict laws regarding handling and disposal. This project is required to insure compliance with federal law and to insure the public safety in the Anchorage area. The project is ongoing and will initially involve the removal of power capacitors known to contain the chemical.	
Central Business District		Minor changes to the existing CBD 4KV system to redistribute loads following conversion of various existing loads to service from the new 3.45KV system.	
Miscellaneous Improvements		Various minor changes to existing 4KV systems to improve system reliability and operation.	

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - STATE RELOCATION & UNDER GROUNDING

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	24	27	29	32	40	50	202		
LAND AND R.O.W.	12	13	15	16	20	30	106		
CONSTRUCTION	121	133	146	161	170	180	911		
EQUIPMENT	121	133	146	161	180	190	931		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	278	306	336	370	410	450	2,150	0	2,150
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH							0	0	
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	278	306	336	370	410	450	2,150		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0	0	
OTHER	0	0	0	0	0	0	0	0	
TOTAL	278	306	336	370	410	450	2,150	0	2,150

**MUNICIPALITY OF ANCHORAGE – CIP - 4
CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY**

Department MUNICIPAL UTILITIES				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category DISTRIBUTION-STATE RELOCATION & UNDERGROUND					
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988	<input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
State Relocation and Underground	278	306	336	370	410	450	2,150		
TOTALS	278	306	336	370	410	450	2,150		

**MUNICIPALITY OF ANCHORAGE – CIP - 5
CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY**

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category DISTRIBUTION STATE RELOCATION & UNDERGROUND	
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
State Relocation and Underground	Relocation and possible undergrounding of distribution facilities as required by State law to accomodate State road projects. Majority of costs must be funded by Municipal Light & Power but must be later reimbursed by the State.		

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER PROJECT CATEGORY: DISTRIBUTION - MUNICIPAL RELOCATION & UNDER GROUNDING

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	30	32	30	40	70	80	282		
LAND AND R.O.W.	25	28	30	36	40	45	204		
CONSTRUCTION	245	270	300	320	340	375	1,850		
EQUIPMENT	200	220	240	264	280	300	1,504		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	500	550	600	660	730	800	3,840	0	3,840

SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
	1983	1984	1985	1986	1987	1988			
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	500	550	600	660	730	800	3,840		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	0	0	0	0	0	0	0	0	
OTHER	0	0	0	0	0	0	0	0	
TOTAL	500	550	600	660	730	800	3,840	0	3,840

**MUNICIPALITY OF ANCHORAGE – CIP - 4
CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY**

Department MUNICIPAL UTILITIES				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT & POWER				Project Category DISTRIBUTION-MUNICIPAL RELOCATION & UNDERGROUND					
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988	<input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
Municipal Relocation & Under-ground Projects	500	550	600	660	730	800	3,840		
TOTALS	500	550	600	660	730	800	3,840		

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category MUNICIPAL RELOCATION AND UNDERGROUND
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
Municipal Underground Projects	Relocation and possible undergrounding of distribution facilities as required by Municipal ordinances to accommodate Municipal road projects. Costs are not refundable.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER PROJECT CATEGORY: TRANSFORMERS AND CAPACITORS

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	10	10	15	15	20	20	90		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	126	144	162	182	204	229	1,047		
EQUIPMENT	431	484	544	610	683	764	3,516		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	567	638	721	807	907	1,013	4,653	0	4,653

SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
	1983	1984	1985	1986	1987	1988			
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	0	0	0	0	0	0	0		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	567	638	721	807	907	1,013	4,653		
OTHER	0	0	0	0	0	0	0		
TOTAL	567	638	721	807	907	1,013	4,653	0	4,653

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category TRANSFORMERS AND CAPACITORS					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988			
THOUSANDS OF DOLLARS									
Distribution Transformers	507	568	636	712	797	893		4,113	
Distribution Capacitors	60	70	85	95	110	120		540	
TOTALS	567	638	721	807	907	1,013		4,653	

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department		MUNICIPAL UTILITIES	Account Code	0531-8004-8600
Program Category		MUNICIPAL LIGHT AND POWER	Project Category	TRANSFORMERS AND CAPACITORS
PROJECT TITLE		SUMMARY OF PROJECT SCOPE		
Transformers		<p>Purchase and initial installation of distribution transformers to serve new customers and upgrade service to existing customers. Installation of distribution capacitors to control power factor and voltage.</p> <p>The amount of distribution transformers required is closely related to load growth because additional transformers are required to serve new customers. As the load increases the average size of the transformers required tends to increase, thus the decreased unit cost tends to offset the effect of inflation.</p>		
Capacitors		<p>Capacitors are required to reduce losses and maintain system voltage. Approximately 5% of the yearly amount will be expended for capacitors to help maintain a proper power factor. Should planned transmission and distribution system improvements be delayed the future amounts for capacitors will have to be significantly increased.</p>		

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: METERS AND SERVICES

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	0	0	0	0	0	0	0		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	224	241	258	277	299	319	1,618		
EQUIPMENT	308	326	346	367	401	424	2,172		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	532	567	604	644	700	743	3,790	0	3,790
SOURCE OF FUNDS									
G.O. BONDS AUTH							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	0	0	0	0	0	0	0		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	532	567	604	644	700	743	3,790		
OTHER	0	0	0	0	0	0	0		
TOTAL	532	567	604	644	700	743	3,790	0	3,790

**MUNICIPALITY OF ANCHORAGE – CIP - 4
CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY**

Department MUNICIPAL UTILITIES				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category METERS AND SERVICES					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988			
THOUSANDS OF DOLLARS									
Meters	237	249	261	274	301	316		1,638	
Services	295	318	343	370	399	427		2,152	
TOTALS	532	567	604	644	700	743		3,790	

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category METERS AND SERVICES	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Meters	Revenue metering equipment reflects projected historical growth plus consideration for inflation.		
Services	Services to new customers and to upgrade service to existing customers. This project covers the cost of service lines, both overhead and underground, from the utilities distribution system to the customers meters. The increasing amounts shown reflect anticipated growth and inflation.		

MUNICIPALITY OF ANCHORAGE – CIP - 2
EXISTING CAPITAL BUDGET SUMMARY

Department
MUNICIPAL UTILITIES
Project Category
ML&P - STREET LIGHTING

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Mt. View	--	800	Project to begin in late 1982 and completed in 1983.

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MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER PROJECT CATEGORY: STREET LIGHTING

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	57	15	20	20	25	25	162		
LAND AND R.O.W.	24	10	10	15	15	15	89		
CONSTRUCTION	401	70	80	90	95	105	841		
EQUIPMENT	373	75	75	85	90	105	803		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	855	170	185	210	225	250	1,895	0	1,895

SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
	1983	1984	1985	1986	1987	1988			
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	700	0	0	0	0	0	700	0	
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0	0	
OPERATING REV	155	170	185	210	225	250	1,195		
OTHER	0	0	0	0	0	0	0		
TOTAL	855	170	185	210	225	250	1,895	0	1,895

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600							
Program Category MUNICIPAL LIGHT AND POWER		Project Category STREET LIGHTING							
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988	<input type="checkbox"/> G.O. <input type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
Street Lighting	155	170	185	210	225	250		1,195	
Mt. View Lighting	700						700		
TOTALS	855	170	185	210	225	250	700	1,195	

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER		Project Category STREET LIGHTING
PROJECT TITLE	SUMMARY OF PROJECT SCOPE	
Street Lighting	<p>A continuing program to improve lighting of arterials and streets in the Central Business District, in new residential subdivisions and to improve lighting elsewhere. The continuing annual amount projected reflects consideration of inflation, saturation of service, and conversion to high pressure sodium vapor at a measured rate. If major lighting projects should be undertaken, additional amounts will be required.</p>	
Mt. View Lighting	<p>A program initiated by the Mt. View Community Council to improve the street lighting in Mt. View residential areas. Approximately 325 new 150 watt high pressure sodium vapor luminaires are being placed at 150 foot intervals on embedded steel poles along residential streets. House Bill 50 authorized \$800,000 of the estimated project costs of \$1,500,000. The remainder to be funded from Municipal Light and Power construction funds as available.</p>	

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: LAND AND LAND RIGHTS

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROF	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	0	0	0	0	0	0	0		
LAND AND R.O.W. CONSTRUCTION	130	104	125	150	180	216	905		
EQUIPMENT	0	0	0	0	0	0	0		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	130	104	125	150	180	216	905	0	905
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	0	0	0	0	0	0	0		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	130	104	125	150	180	216	905		
OTHER	0	0	0	0	0	0	0		
TOTAL	130	104	125	150	180	216	905	0	905

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department MUNICIPAL UTILITIES		Account Code 0531-8004-8600							
Program Category MUNICIPAL LIGHT AND POWER		Project Category LAND AND LAND RIGHTS							
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1983	1984	1985	1986	1987	1988			
THOUSANDS OF DOLLARS									
Land and Land Rights	130	104	125	150	180	216		905	
TOTALS	130	104	125	150	180	216		905	

MUNICIPALITY OF ANCHORAGE - CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITIES	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category LAND AND LAND RIGHTS
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
Land and Land Rights	To cover the acquisition of easements, permits and miscellaneous small plots as required by system growth. Purchase of substation site in 1983.

MUNICIPALITY OF ANCHORAGE – CIP - 2
 EXISTING CAPITAL BUDGET SUMMARY

Department MUNICIPAL UTILITIES
Project Category ML&P - GENERAL PLANT

EXISTING CAPITAL IMPROVEMENT BUDGET/PROJECTS COMPLETED DURING PRIOR YEAR

PROJECT TITLE/COST CENTER	Original CIB Cost Est.	Total Current Funding	EXPLANATION/STATUS
Central Dispatch and Control	450	1,894	Interim SCADA is due to arrive in July. Final system is anticipated to be ordered in 1983 with construction 1984 approximately one year behind original schedule
Remodel Warehouse and Administration Building	1,000	1,000	Major portion of warehouse remodeling to be completed in 1982 and part of administration building. Remainder of administration building remodeling to be done in 1983.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: GENERAL PLANT

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1983	1984	1985	1986	1987	1988			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	307	90	91	75	75	75	713		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	1,043	200	189	50	50	50	1,582		
EQUIPMENT	820	473	491	526	530	542	3,382		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	2,170	763	771	651	655	667	5,677	0	5,677
SOURCE OF FUNDS									
							TOTAL FUNDS	REIMBUR SABLES	NON-REIM BURSABLES
G.O. BONDS AUTH							0	0	
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0		
REVENUE BONDS	1,765	365	355	200	200	200	3,085		
FEDERAL GRANT	0	0	0	0	0	0	0	0	
STATE GRANT	0	0	0	0	0	0	0	0	
CONTRIBUTIONS	0	0	0	0	0	0	0		
OPERATING REV	385	398	416	451	455	0	2,105		
OTHER	20	0	0	0	0	467	487		
TOTAL	2,170	763	771	651	655	667	5,677	0	5,677

MUNICIPALITY OF ANCHORAGE – CIP - 4
 CAPITAL IMPROVEMENT PROJECT FINANCIAL SUMMARY

Department		MUNICIPAL UTILITIES					Account Code				0531-8004-8600			
Program Category		MUNICIPAL LIGHT AND POWER					Project Category				GENERAL PLANT			
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS					
	1983	1984	1985	1986	1987	1988								
THOUSANDS OF DOLLARS														
Tools-Equipment-Furniture	125	134	143	153	164	176		895						
Vehicles	225	227	233	240	245	242		1,412						
Miscellaneous System Enhancements	150	150	150	150	150	150	900							
AR Software	150						150							
Unidentified Plant Additions	50	50	50	50	50	50	300							
Lab Equipment	35	37	40	43	46	49		250						
Computer Hardware	160						160							
Two-Way Radio Replacement	20			15				35						
Fuel Storage ML&P Vehicles (Emergency Reserve)	40						40							
Modifications to Warm Storage Building	65						65							
Warehouse Paving	135	145	155				435							
Security Fencing Warehouse/Ops.	35	20					55							
Line Personnel & Equipment Building	880						880							
Contract Construction and Material Staging Building (Day Labor)	100						100							
TOTALS	2,170	763	771	651	655	667	3,085	2,592						

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department	MUNICIPAL UTILITES	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	GENERAL PLANT
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Tools-Equipment-Furniture	Covers the anticipated routine addition and replacement of small tools, furniture, and other small equipment.		
Vehicles	Covers the anticipated replacement of various Municipal Light and Power vehicles.		
Miscellaneous System Enhancements	Develop small in house systems for management purposes.		
A/R Software	Enhancement of the existing Electric Billing System to include billing and accounts receivable or the purchase of a packaged billing Accounts Receivable System compatible with the existing utility hardware and software.		
Unidentified Plant Additions	Small unplanned plant additions or renovations to meet personnel and OSHA requirements.		
Lab Equipment	Electronic and power systems diagnostic equipment as required to evaluate system design engineering.		
Computer Hardware	Purchase of a Hewlett Packard 3000/44 mini computer to handle the increasing data processing production requirements of the Continuing Property Records System, Electric Bill Calculation System, and other management information systems now or soon to be operational. By early 1983 the existing HP mini computer will be saturated to the point where it will not be able to handle both production and development.		
Two-Way Radio Replacement	This will replace old two-way radios which cannot be maintained due to obsolete parts and F.C.C. frequency restrictions (15 to 20 per year).		
Fuel Storage ML&P Vehicles (Emergency Reserve)	This will provide full fuel reserve capacity for all ML&P vehicles to insure normal fuel requirements and a two month emergency supply.		
Modifications to Warm Storage Building	This will provide for remodeling two bays of the vacated solid waste warm storage building (to be taken over by ML&P) to allow for interior use by the ML&P vehicle mechanic and will ultimately be utilized by the ML&P Meter/Transformer Section.		

MUNICIPALITY OF ANCHORAGE – CIP - 5
 CAPITAL IMPROVEMENT PROJECT SCOPE SUMMARY

Department MUNICIPAL UTILITES		Account Code 0531-8004-8600	
Program Category MUNICIPAL LIGHT AND POWER		Project Category GENERAL PLANT	
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Warehouse Paving		This will provide for phased paving (1/3 at a time) of the ML&P warehouse yard area and is required to allow for snow removal, reduced equipment maintenance and improved storage and material handling.	
Security Fencing of Warehouse/ Operations		This will provide for necessary chain link security fencing of expanded warehousing, equipment and transformer storage.	
Line Personnel and Equipment Building		This will provide for essential centralized consolidation of the ML&P Operation Division and for increased spacing requirements for line construction personnel, full-time use vehicle warm storage and mechanic facilities at one location. This project will be constructed in sequence with the Phase II of the main office building remodeling (previously funded thru Coastal Zone).	
Contract Construction and Material Staging Building (Day Labor)		This will provide for show-up, dispatching, training and material staging facilities for Day Labor construction personnel.	