

MUNICIPALITY OF ANCHORAGE – CIP - 1
DEPARTMENT CAPITAL NEEDS ANALYSIS

Department	MUNICIPAL LIGHT AND POWER
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
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: GENERATION

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	561	450	200	200	200	200	1,811		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	2,210	1,331	1,830	1,300	2,480	3,300	12,451		
EQUIPMENT	7,901	2,472	4,730	1,580	3,130	3,700	23,513		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	10,672	4,253	6,760	3,080	5,810	7,200	37,775	0	37,775
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	10,672	4,253	6,760	3,080	5,810	7,200	37,775		
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	10,672	4,253	6,760	3,080	5,810	7,200	37,775	0	37,775

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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Department		Account Code					PAGE 7.77		
Program Category		Project Category							
MUNICIPAL LIGHT AND POWER		0531-8004-8600							
MUNICIPAL LIGHT AND POWER		GENERATION							
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987	<input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
Major Improvements and Parts Turbines and Boilers	825	1,235	1,260	880	1,610	1,000	6,810		
Oil Fired Turbine Peaking Unit	6,500		2,500				9,000		
Water Treatment Reverse Osmosis Unit	330						330		
Deicing System	17	18					35		
Future Coal or Hydro	3,000	3,000	3,000	2,200	4,200	6,200	21,600		
TOTALS	10,672	4,253	6,760	3,080	5,810	7,200	37,775		

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

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Department	MUNICIPAL LIGHT AND POWER	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 and Boilers	<ol style="list-style-type: none"> 1. Reflects Boiler spare parts of 50,000 per year. 2. Major improvements of turbines to insure reliability and extend usefule machine life. <div style="margin-left: 100px;"> <p>1982 Turbine #1 - 325,000 #3 - 400,000 #5 - 50,000</p> <p>1983 Turbine #2 - 265,000 #6 - 330,000 #7 - 590,000</p> <p>1984 Turbine #3 - 400,000 #8 400,000 #4 - 410,000</p> <p>1985 Turbine #7 - 450,000 #1 - 380,000</p> <p>1986 Boiler #5 - 780,000 #7 - 780,000</p> <p>1987 Turbine #2 - 240,000 #5 - 470,000 #4 - 240,000</p> </div>		
Oil Fired Turbine Peaker	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.		
Deicing System	Insure reliable adequate intake air to Turbines 1, 2, & 3 during ice fog and icing conditions, heating must be instituted to insure continued operation.		

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

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Department MUNICIPAL LIGHT AND POWER	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category GENERATION
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
<p>Water Treatment Reverse Osmosis Unit</p> <p>Future Coal & Hydro</p>	<p>Unit to reclaim and save chemically treated water for reuse in steam cycle system (reduce cost of producing chemically treated water).</p> <p>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.</p>

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: TRANSMISSION - PLANT

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	90	60	20	20	20	20	230		
LAND AND R.O.U.	0	10	0	0	0	0	10		
CONSTRUCTION	240	310	20	20	20	20	630		
EQUIPMENT	500	460	20	20	20	20	1,040		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	830	840	60	60	60	60	1,910	0	1,910

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	830	840	60	60	60	60	1,910		
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	830	840	60	60	60	60	1,910	0	1,910

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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Department		MUNICIPAL LIGHT AND POWER					Account Code		0531-8004-8600		
Program Category		MUNICIPAL LIGHT AND POWER					Project Category		TRANSMISSION - PLANT		
PROJECT TITLE		TOTAL PROJECT COST					BONDS		OTHER LOCAL	STATE OR FEDERAL FUNDS	
		1982	1983	1984	1985	1986	1987	<input type="checkbox"/> G.O. <input type="checkbox"/> REV			
THOUSANDS OF DOLLARS											
Plant #2 Switchyard Addition		10	590						600		
Substation 115KV Yards		590	100						690		
Transmission Relaying		230	150	60	60	60	60		620		
TOTALS		830	840	60	60	60	60		1,910		

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	TRANSMISSION – PLANT
PROJECT TITLE		SUMMARY OF PROJECT SCOPE	
Plant #2 Switchyard Addition		Design and construction of transmission switchyard addition at Municipal Light and Power Generation Station 2.	
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.	
Substation 115KV Yards		Design and construction of small 115KV switchyards at distribution substations as required to accomodate new 115KV transmission lines.	

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
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	161	102	23	14	10	11	321		
LAND AND R.O.W.	131	129	213	17	20	22	532		
CONSTRUCTION	963	596	179	341	46	54	2,179		
EQUIPMENT	391	295	79	32	20	21	838		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,646	1,122	494	404	96	108	3,870	0	3,870
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	1,646	1,122	494	404	96	108	3,870		
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	1,646	1,122	494	404	96	108	3,870	0	3,870

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department				Account Code					
MUNICIPAL LIGHT AND POWER				0531-8004-8600					
Program Category				Project Category					
MUNICIPAL LIGHT AND POWER				TRANSMISSION - LINES					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Substation #6 to Substation #11	365						365		
Substation #16 to Substation #15	775						775		
Relay Pilot Wire Construction	300	330					630		
Various Line Construction	51	59	73	83	96	108	470		
Fort Richardson to Plant #1	70	380					450		
Turbine #5 Line Underground	40	100					140		
Turbine #8 Underground Line to Switchyard	45	120					165		
Substation #17 Line Extension		133	421	321			875		
TOTALS	1,646	1,122	494	404	96	108	3,870		

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	TRANSMISSION - LINES
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Substation #6 to Substation #11	Design and construction of 115KV line between Substation 6 and Substation 11 via Arctic Boulevard and International Airport Road. Includes easement acquisition and may include upgrading existing 34.5KV line.		
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.		
Relay Pilot Wire Construction	Installation of control lines between major stations as required by protective and control systems.		
Various Line Construction	Minor line work required by easement, safety, and other regulatory requirements.		
Fort Richardson to Plant #1	Design and construction of a new 115KV line between the new Fort Richardson Substation and Municipal Light and Power Generation Station #1 to provide a second backbone line between generation plants.		
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.		

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER							PROJECT CATEGORY: DISTRIBUTION - PLANT		
THOUSANDS OF DOLLARS							FUTURE	PRIOR	TOTAL
	1982	1983	1984	1985	1986	1987	PROJECT	YEARS	PROJECT
							COST	APPROP	COST
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	95	63	20	45	25	25	273		
LAND AND R.O.W.	20	5	30	0	36	0	91		
CONSTRUCTION	528	267	0	380	0	460	1,635		
EQUIPMENT	102	93	1,000	0	1,200	0	2,395		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	745	428	1,050	425	1,261	485	4,394	0	4,394
SOURCE OF FUNDS							TOTAL	REINBUR	NON-REIN
							FUNDS	SABLES	BURSABLES
G.O. BONDS AUTH.									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	745	428	1,050	425	1,261	485	4,394		
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	745	428	1,050	425	1,261	485	4,394	0	4,394

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category DISTRIBUTION – PLANT					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987	THOUSANDS OF DOLLARS		
New Fort Richardson Substation	160						160		
Remove Substations 6A, 7, 8, 12	20	140					160		
New Substation #11	250	40					290		
New Substation #17		20	1,050	400			1,470		
New Substation #18	110						110		
Voltage Protection Relays	25	30					55		
Underfrequency Loadshedding	80	88					168		
SCADA Remote Terminals	100	110					210		
New Substation #19				25	1,261	485	1,771		
TOTALS	745	428	1,050	425	1,261	485	4,394		

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

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Department	MUNICIPAL LIGHT AND POWER	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.		
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.		
New Substation #11	Design and construction of a new 28 MVA substation at International Airport to be served from new 115KV transmission system to serve expanding load in this area.		
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 formally located at Substation #14.		
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 system which is anticipated to be expanded in the near future to significantly improve system reliability and reduce operating energy costs.		

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

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Department MUNICIPAL LIGHT AND POWER	Account Code 0531-8004-8600
Program Category MUNICIPAL LIGHT AND POWER	Project Category DISTRIBUTION - PLANT
PROJECT TITLE	SUMMARY OF PROJECT SCOPE
New Substation #19	Design and construct a new substation as required to service load increase. Rating and location to be determined by future study.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - 35 KV

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	155	117	133	120	152	163	840		
LAND AND R.O.W.	50	40	50	70	88	65	363		
CONSTRUCTION	1,085	773	862	860	950	1,066	5,596		
EQUIPMENT	560	415	445	430	470	530	2,850		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,850	1,345	1,490	1,480	1,660	1,824	9,649	0	9,649
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	1,850	1,345	1,490	1,480	1,660	1,824	9,649		
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	1,850	1,345	1,490	1,480	1,660	1,824	9,649	0	9,649

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category DISTRIBUTION - 35KV					
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987	<input type="checkbox"/> G.O. <input type="checkbox"/> REV		
	THOUSANDS OF DOLLARS								
Central Business District Improvements	400	470	530	420	490	544	2,854		
Government Hill Improvements	100	110	120	130	150	160	770		
Dock Improvements	150	165	180	200	220	240	1,155		
Central Business District Vault - Duct	1,200	600	660	730	800	880	4,870		
TOTALS	1,850	1,345	1,490	1,480	1,660	1,824	9,649		

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

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Department MUNICIPAL LIGHT AND POWER	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.
Government Hill Improvements	Construction of a new 34.5KV distribuion system in the Government Hill area as required to expand service and reduce loading of existing old 4KV system in this 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.
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 reduced overall project costs. This is an ongoing project to provide a highly reliable underground electric power system in this core area.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - 12 KV

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	222	141	136	154	117	130	900		
LAND AND R.O.W.	46	39	33	139	50	70	377		
CONSTRUCTION	1,288	846	874	954	714	760	5,436		
EQUIPMENT	763	506	536	503	335	375	3,018		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	2,319	1,532	1,579	1,750	1,216	1,335	9,731	0	9,731
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	2,319	1,532	1,579	1,750	1,216	1,335	9,731		
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	2,319	1,532	1,579	1,750	1,216	1,335	9,731	0	9,731

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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DepartmentMUNICIPAL LIGHT AND POWER				Account Code0531-8004-8600					
Program CategoryMUNICIPAL LIGHT AND POWER				Project CategoryDISTRIBUTION - 12KV					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Customer Line Extension	199	212	229	248	271	300	1,459		
Substation #17 Feeders			45	652			697		
Substation #11 Tie Lines	100	120	130	150	165	185	850		
Substation #18 Tie Lines	100	120					220		
Major Tie Line Improvement	250	275	300	330	370	400	1,925		
Substation #15 to Patterson Line	250						250		
Substation #15 to Lake Otis Line	250						250		
Airport Terminal	200						200		
Convert Substation #10 to 12KV	230	130					360		
Convert Substation #1 to 12KV		135	295				430		
Tudor Center Business Park	250						250		
System Automation	180	200	220	240	270	290	1,400		
PCB Removal	210	230	240				680		
Central Business District Improvements	50	55	60	65	70	80	380		
Miscellaneous Improvements	50	55	60	65	70	80	380		
TOTALS	2,319	1,532	1,579	1,750	1,216	1,335	9,731		

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

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Department	MUNICIPAL LIGHT AND POWER	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.		
Substation #15 to Patterson Line	Design and construction of an underground 600 Amp 12KV cable feeder from Substation #15 to Patterson Street via Northern Lights Blvd. This project is to be accomplished in conjunction with the widening of Northern Lights Blvd. which is a State project presently under design. This feeder will result in expanded capacity to the east Anchorage area to improve system capability and reliability.		
Substation #15 to Lake Otis Line	Design and construction of an underground 12KV 600 Amp cable feeder from Substation #15 to Lake Otis Blvd. via Northern Lights Blvd. This cable circuit is to be constructed in conjunction with the Northern Lights Blvd. widening project presently in the design stage by the State of Alaska. This cable circuit will improve system capacity and reliability and will eventually intertie with the new Substation #17.		

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	DISTRIBUTION - 12KV
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Airport Terminal	Construction of underground 12KV distribution lines in the vicinity of the new Anchorage North/South Runway as required to provide electrical power service to new terminal facilities.		
Convert Substation #10 to 12KV	Conversion of Substation #10 existing 4KV loads to 12KV service to improve capacity in the railroad area, reduce obsolete 4KV system loading, and improve overall reliability.		
Convert Substation #1 to 12KV	Conversion of Substation #1 4KV loads, to 12KV service to retire Substation #1, improve capacity and reliability in the existing service area. Substation #1 service area involved extends from Gambell Street to Orca and from East 13th Avenue to Post road.		
Tudor Center Business Park	Extend primary underground cable facilities to the Tudor Center Business Park in the vicinity of College Gate and Tudor Road in order to provide service to this new development.		
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.		
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.		

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	DISTRIBUTION - 4KV
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Central Business District Improvements	Minor changes to the existing CBD 4KV system to redistribute loads following conversion of various existing loads to service from the new 34.5KV 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
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	22	24	27	29	32	40	174		
LAND AND R.O.W.	11	12	13	15	16	20	87		
CONSTRUCTION	110	121	133	146	161	170	841		
EQUIPMENT	110	121	133	146	161	180	851		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	253	278	306	336	370	410	1,953	0	1,953
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	253	278	306	336	370	410	1,953		
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	253	278	306	336	370	410	1,953	0	1,953

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category DISTRIBUTION – STATE RELOCATION & UNDERGROUND					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
State Relocation and Underground	253	278	306	336	370	410	1,953		
TOTALS	253	278	306	336	370	410	1,953		

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

PAGE 254

Department MUNICIPAL LIGHT AND POWER	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 and Power but must be later reimbursed by the State.

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: DISTRIBUTION - MUNICIPAL RELOCATION & UNDER GROUNDING

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	27	30	32	30	40	70	229		
LAND AND R.O.W.	23	25	28	30	36	40	182		
CONSTRUCTION	221	245	270	300	320	340	1,696		
EQUIPMENT	180	200	220	240	264	280	1,384		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	451	500	550	600	660	730	3,491	0	3,491
SOURCE OF FUNDS							TOTAL FUNDS	REIMBUR SABLES	NON-REIN BURSABLES
G.O. BONDS AUTH.									
G.O. BONDS UNAUTH.	0	0	0	0	0	0	0	0	
REVENUE BONDS	451	500	550	600	660	730	3,491		
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	451	500	550	600	660	730	3,491	0	3,491

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER					Account Code 0531-8004-8600				
Program Category MUNICIPAL LIGHT AND POWER					Project Category DISTRIBUTION-MUNICIPAL RELOCATION & UNDERGROUND				
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input checked="" type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Municipal Relocation and Under-ground Projects	451	500	550	600	660	730	3,491		
TOTALS	451	500	550	600	660	730	3,491		

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

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Department	Account Code
MUNICIPAL LIGHT AND POWER	0531-8004-8600
Program Category	Project Category
MUNICIPAL LIGHT AND POWER	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

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: TRANSFORMERS AND CAPACITORS

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	10	10	10	10	10	10	60		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	116	131	149	167	187	209	959		
EQUIPMENT	387	436	489	549	615	688	3,164		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	513	577	648	726	812	907	4,183	0	4,183
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	513	577	648	726	812	907	4,183		
OTHER	0	0	0	0	0	0	0		
TOTAL	513	577	648	726	812	907	4,183	0	4,183

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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Department		Account Code						PAGE	
MUNICIPAL LIGHT AND POWER		0531-8004-8600							
Program Category		Project Category							
MUNICIPAL LIGHT AND POWER		TRANSFORMERS AND CAPACITORS							
PROJECT TITLE	TOTAL PROJECT COST						BONDS	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987	<input type="checkbox"/> G.O. <input type="checkbox"/> REV		
THOUSANDS OF DOLLARS									
Distribution Transformers	453	507	568	636	712	797		3,673	
Distribution Capacitors	60	70	80	90	100	110		510	
TOTALS	513	577	648	726	812	907		4,183	

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

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Department MUNICIPAL LIGHT AND POWER	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

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: METERS AND SERVICES

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
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	209	224	243	256	277	299	1,508		
EQUIPMENT	290	308	336	336	367	401	2,038		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	499	532	579	592	644	700	3,546	0	3,546
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	499	532	579	592	644	700	3,546		
OTHER	0	0	0	0	0	0	0		
TOTAL	499	532	579	592	644	700	3,546	0	3,546

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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Department MUNICIPAL LIGHT AND POWER				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
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Meters	225	237	261	249	274	301		1,547	
Services	274	295	318	343	370	399		1,999	
</									

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Department	MUNICIPAL LIGHT AND POWER	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
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: STREET LIGHTING

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	15	15	15	15	25	25	110		
LAND AND R.O.W.	10	10	10	10	10	10	60		
CONSTRUCTION	65	70	80	90	90	105	500		
EQUIPMENT	60	70	75	80	85	100	470		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	150	165	180	195	210	240	1,140	0	1,140
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	150	165	180	195	210	240	1,140		
OTHER	0	0	0	0	0	0	0		
TOTAL	150	165	180	195	210	240	1,140	0	1,140

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				Account Code 0531-8004-8600					
Program Category MUNICIPAL LIGHT AND POWER				Project Category STREET LIGHTING					
PROJECT TITLE	TOTAL PROJECT COST						BONDS <input type="checkbox"/> G.O. <input type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Street Lighting	150	165	180	195	210	240		1,140	
TOTALS	150	165	180	195	210	240		1,140	

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	STREET LIGHTING
PROJECT TITLE	SUMMARY OF PROJECT SCOPE		
Street Lighting	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.		

MUNICIPALITY OF ANCHORAGE
CAPITAL PROJECT CATEGORY SUMMARY

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DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: LAND AND LAND RIGHTS

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	0	0	0	0	0	0	0		
LAND AND R.O.W.	74	87	104	125	150	180	720		
CONSTRUCTION	0	0	0	0	0	0	0		
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	74	87	104	125	150	180	720	0	720
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	74	87	104	125	150	180	720		
OTHER	0	0	0	0	0	0	0		
TOTAL	74	87	104	125	150	180	720	0	720

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				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
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Land and Land Rights	74	87	104	125	150	180		720	
TOTALS	74	87	104	125	150	180		720	

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

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Department	MUNICIPAL LIGHT AND POWER	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
CAPITAL PROJECT CATEGORY SUMMARY

DEPARTMENT: MUNICIPAL LIGHT & POWER

PROJECT CATEGORY: GENERAL PLANT

	THOUSANDS OF DOLLARS						FUTURE PROJECT COST	PRIOR YEARS APPROP	TOTAL PROJECT COST
	1982	1983	1984	1985	1986	1987			
CAPITAL INVESTMENT COSTS									
PLANNING AND DESIGN	150	85	135	85	95	95	645		
LAND AND R.O.W.	0	0	0	0	0	0	0		
CONSTRUCTION	800	112	1,000	80	130	140	2,262		
EQUIPMENT	525	335	479	446	994	431	3,210		
INTERFUND CHARGES	0	0	0	0	0	0	0		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,475	532	1,614	611	1,219	666	6,117	0	6,117
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	950	100	1,110	120	700	200	3,180		
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	525	432	504	491	519	466	2,937		
OTHER	0	0	0	0	0	0	0		
TOTAL	1,475	532	1,614	611	1,219	666	6,117	0	6,117

THIS CATEGORY CAUSES NO SIGNIFICANT INCREASE IN TAX SUPPORTED OPERATING COSTS

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

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Department MUNICIPAL LIGHT AND POWER				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 checked="" type="checkbox"/> REV	OTHER LOCAL	STATE OR FEDERAL FUNDS
	1982	1983	1984	1985	1986	1987			
	THOUSANDS OF DOLLARS								
Central Dispatch and Control	450	100	110	120	700	200	1,680		
Remodel Warehouse and Administra- tion Building	500		1,000				1,500		
Tools - Equipment - Furniture	120	125	130	135	140	140		790	
Vehicles	190	90	155	135	155	100		825	
Miscellaneous System Enhancements	150	150	150	150	150	150		900	
Unidentified Plant Additions	50	50	50	50	50	50		300	
Lab Equipment	15	17	19	21	24	26		122	
TOTALS	1,475	532	1,614	611	1,219	666	3,180	2,937	

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

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Department	MUNICIPAL LIGHT AND POWER	Account Code	0531-8004-8600																		
Program Category	MUNICIPAL LIGHT AND POWER	Project Category	GENERAL PLANT																		
PROJECT TITLE	SUMMARY OF PROJECT SCOPE																				
Central Dispatch Control	Design and construct comprehensive utility control and dispatch control. Includes installation of remote control units at generation, transmission, substation, and major load areas.																				
Remodel Warehouse and Administration Building	To provide remodeling of space vacated by Data Processing and the Electronics move. This space will be occupied by Operations and other Municipal Light and Power staffing.																				
Tools - Equipment - Furniture	Covers the anticipated routine addition and replacement of small tools, furniture, and other small equipment.																				
Vehicles	<table><tr><td>Reel Trailer</td><td>12,000</td><td>Replacement</td></tr><tr><td>Forklift</td><td>50,000</td><td>Replacement</td></tr><tr><td>Backhoe</td><td>32,000</td><td>Replacement</td></tr><tr><td>1 Ton Step Van</td><td>20,000</td><td>Addition for Relay Section</td></tr><tr><td>1/2 Ton Mini Truck</td><td>10,000</td><td>Addition</td></tr><tr><td>7 - 4x4 Mini Trucks</td><td>66,000</td><td>Replacement</td></tr></table>			Reel Trailer	12,000	Replacement	Forklift	50,000	Replacement	Backhoe	32,000	Replacement	1 Ton Step Van	20,000	Addition for Relay Section	1/2 Ton Mini Truck	10,000	Addition	7 - 4x4 Mini Trucks	66,000	Replacement
Reel Trailer	12,000	Replacement																			
Forklift	50,000	Replacement																			
Backhoe	32,000	Replacement																			
1 Ton Step Van	20,000	Addition for Relay Section																			
1/2 Ton Mini Truck	10,000	Addition																			
7 - 4x4 Mini Trucks	66,000	Replacement																			
Miscellaneous System Enhancements	Develop small in house systems for management purposes.																				
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.																				