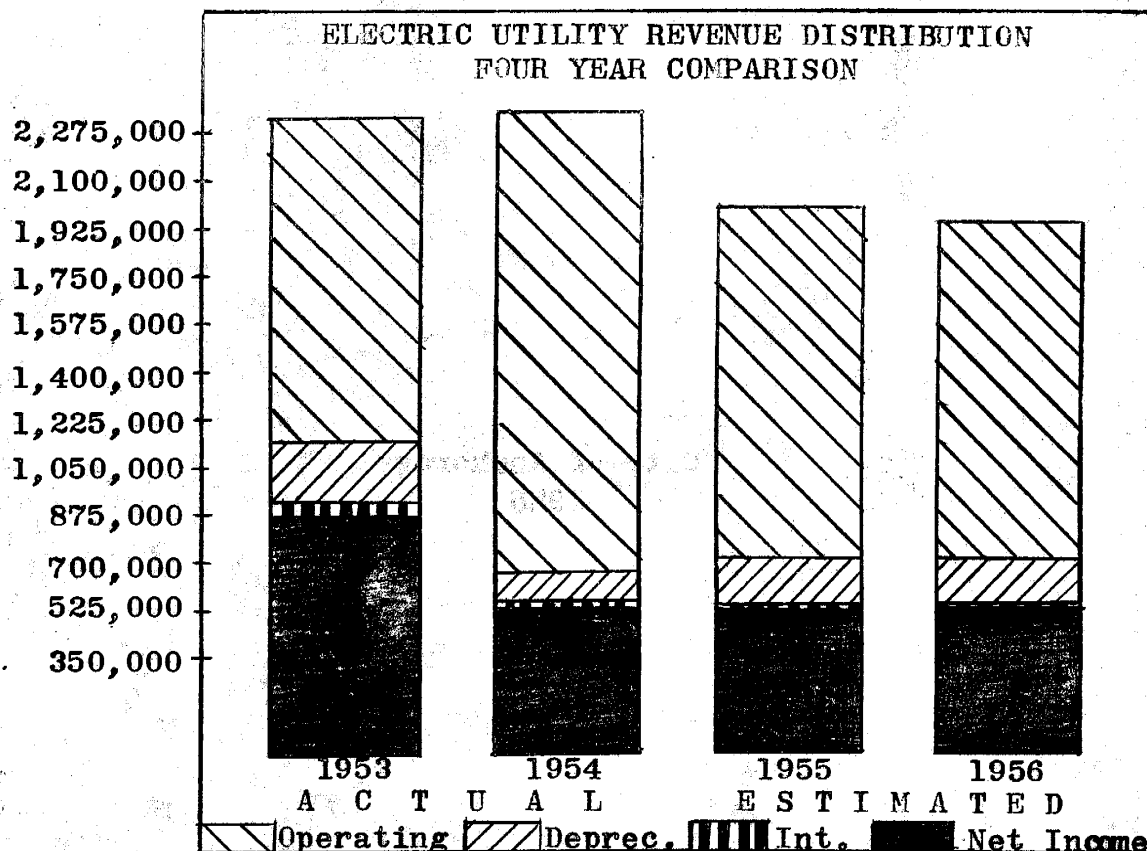
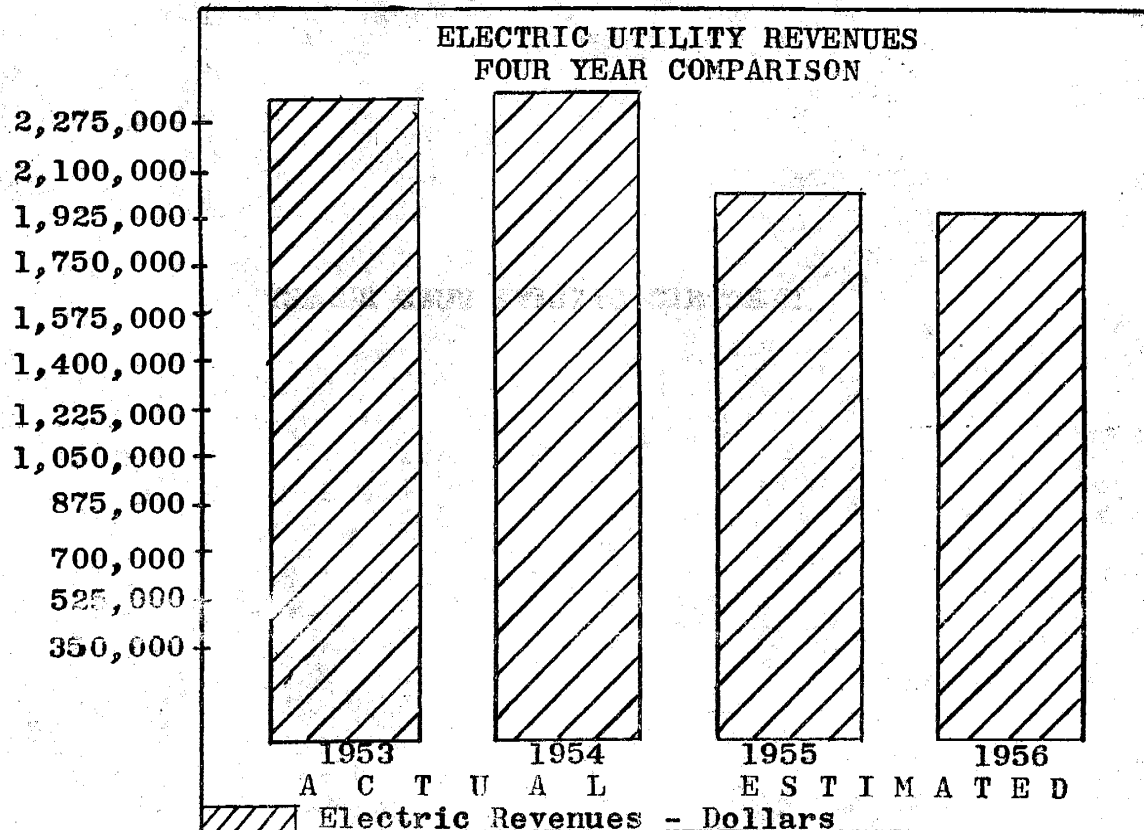


ELECTRIC UTILITY FUND BUDGET

**City of Anchorage
1956**



**ELECTRIC UTILITY FUND
1956 BUDGET**

<u>Code</u>		<u>Estimated 1955</u>	<u>Estimated 1956</u>
	<u>Operating Revenues</u>		
E 600	Residential & Domestic	\$ 688,132	\$ 758,500
E 602	Commercial & Industrial	1,056,609	1,069,800
E 603	Public Street Lighting	57,853	64,500
E 604	Sales to other Public Auth.	51,411	44,800
E 606	Water Heating	96,664	105,500
E 607	Other Department Sales	33,796	31,500
E 612	Customer Forfeits & Discounts	17,249	16,000
E 614	Servicing Customer's Instal- lations	4,992	7,200
E 615	Misc. Electrical Revenue	11,765	12,000
	Total Operating Revenue	\$2,018,471	\$2,109,800
	Depreciation Reserve	173,191	172,284
	TOTAL BUDGET RESOURCES.....	\$2,191,662	\$2,282,084
	Less: Estimated rate reduction to be effective July 1, 1956		150,000
		\$2,191,662	\$2,132,084

EXPLANATION OF ELECTRIC REVENUE ESTIMATES:

The Electric Revenue Estimates have been made from an analysis of the comparative statistics which appear on the following page. The table shows that there will be an increase of three million kilowatt hours of energy sold and approximately 300 additional customers. Even though there are increases in customers and number of kilowatt hours sold, the gross revenue expected from electrical sales is less than the 1955 revenue.

The average kilowatt usage per customer is estimated to increase approximately 8% during 1956. The increased usage was predicated on the trend which has developed in the City's electrical consumers during the past four years and is also justified by a National trend of increased electrical consumption. The increased usage factor has been applied to the revenue estimates on commercial, residential, and water heating energy.

Revenues from residential and commercial customers were based on the average revenue per K.W.H. for June, July and August of 1955, these being the only statistics available that reflected the new 1955 rate schedules.

A new account, E 606, has been set up for water heating. Estimated K.W.H. sales and revenue for 1956 are 5,365,500 K.W.H.,

for a revenue of \$105,500. This revenue is based on the average revenue of \$0.0197 per K.W.H.

Street lighting revenue is increased to allow for the new units that will be installed late in 1955 and early in 1956. The 1955 program included 120 lights and the 1956 program includes 200 lights.

Sales to other public agencies is a separate revenue account reflecting energy sold to the International Airport. No increase in usage is estimated and no increase in sales is expected. The estimated drop of revenue reflects the revised rate structure which became effective during 1955. Other departmental sale is the billing to all City-owned properties other than street lighting. Customer forfeits and discounts are the penalties charged on delinquent accounts. Servicing customers' installation and miscellaneous electric revenue is made up of various service charges, rentals charged to telephone utility for pole contacts, interest on security deposits and impressed funds and other miscellaneous revenues which are not classified elsewhere.

The increased consumption per customer has resulted in increasing the revenues of the electrical utility without a proportionate increase in expenditure accounts. The only direct increase resulting from increased usage is reflected in the cost of purchased power. The operating efficiency of distribution has been further increased by additional usage of electricity during the summer months. During 1954-55, the seasonable drop that had existed in prior years has shown a sharp decrease. These two factors will result in an increase in net operating revenues to a point where further rate reductions are justified.

The electrical consumer is contributing to the operating expenses of the General Fund to a larger degree than either the water or telephone consumer. Therefore, it seems justifiable that the savings through increased operating efficiency of the electrical system should be passed on to the City's electrical customers. However, before making any rate reductions, one full year's experience should be gained of purchasing power from the Bureau of Reclamation. Before applying any rate reductions, a study of the present rate structure should be made in order to properly distribute the proposed rate reduction. Since the proposed rate reduction would only be applicable for six months of 1956, it is estimated that the annual savings to City electrical consumers would exceed \$250,000. If the rates that were in effect at the beginning of 1954 were still applicable in 1956, these revenue estimates would be approximately \$600,000 higher than shown with the new rates.

COMPARATIVE STATISTICS

	1954	1955 Actual 9 Mo. Est. 3 Mo.	1956 Estimated
Power Sales:			
Commercial	24,721,937	27,575,182	29,000,000
International Air	1,752,400	1,975,800	1,900,000
Residential	13,644,087	14,237,998	16,000,000
Water Heating	5,365,476	5,548,149	5,500,000
City Use	2,337,640	2,530,251	2,600,000
Total K.W.H. Sold	47,821,540	51,867,380	55,000,000
Power Sales Revenue	\$ 2,265,451	\$ 2,015,661	\$ 2,074,600
Average Revenue per K.W.H. (Total)	.047373	.038862	.037720
Average Number of Meters (By Class)			
Commercial	1522	1576	1650
Residential	5944	5838	6000
Water Heating	1111	1169	1220
Total Average Number of Meters	8577	8583	8870
Average Revenue per K.W.H. (By Class)			
Commercial	.049664	.038953	.036889
International Air	.028199	.025380	.023578
Residential	.058414	.049072	.047406
Water Heating	.020391	.018770	.019182
City Use	.034999	.035000	.036923
Average K.W.H. per Month per Customer (By Class)			
Commercial	1353.59	1458.08	1464.65
International Air	146,003.00	164,650.00	158,333.00
Residential	191.29	203.24	222.22
Water Heating	402.45	395.51	375.68

**ELECTRIC UTILITY FUND
1956 BUDGET**

EXPENDITURE SUMMARY

<u>Expenditure Classification</u>	<u>Estimated 1955</u>	<u>Estimated 1956</u>
Steam Generation Expense	\$ 100,325	\$ -----
Hydro Generation Expense	14,001	-----
Diesel Generation Expense	140,115	76,690
Purchased Power	523,205	659,520
Transmission Expense	4,575	-----
Total Cost of Power	<u>\$ 782,221</u>	<u>\$ 736,210</u>
 Distribution Operating Expenses	83,855	97,550
Distribution Maintenance Expenses	74,475	76,440
Customers Accounting & Collect- ing Expenses	122,790	132,895
Administrative & General Expense	90,755	107,140
Clearing Accounts	42,000	33,400
Total Distribution Expenses	<u>\$ 413,875</u>	<u>\$ 447,425</u>
 Other Expenses	277,417	231,028
Transfer to General Fund	360,000	312,000
Reserve for Bonded Debt	40,000	-----
Construction Fund	318,149	405,421
	<u>\$ 995,566</u>	<u>\$ 948,449</u>
 TOTAL MUNICIPAL LIGHT & POWER BUDGET.....	 \$2,191,662	 \$2,132,084

ELECTRIC UTILITY EXPENDITURES

<u>Code</u>		<u>Estimated 1955</u>	<u>Estimated 1956</u>
	<u>STEAM GENERATION OPERATING EXPENSES</u>		
E 701	Operation, Supervision & Engineering	\$ 2,300	-0-
E 702.1	Boiler Labor	14,690	-0-
E 702.2	Turbine & Generator Labor	7,510	-0-
E 702.4	Miscellaneous Station Labor	17,445	-0-
E 703	Fuel	43,100	-0-
E 704	Water	8,495	-0-
E 705.2	Station Supplies	40	-0-
E 705.3	Station Expense	510	-0-
	Total Steam Operating Exp.	\$ 94,090	-0-
	<u>MAINTENANCE EXPENSE</u>		
E 706	Maintenance Supervision & Engineering	\$ 2,300	-0-
E 708.2	Furnace & Boilers	490	-0-
E 709.1	Maintenance of Turbine & Generator	1,080	-0-
E 709.2	Maintenance of Accessory Equipment	1,150	-0-
E 709.3	Maintenance of Miscellaneous Equipment	1,210	-0-
E 710	Rents	5	-0-
	Total Steam Maint. Expense	\$ 6,335	-0-
	TOTAL STEAM GENERATING EXP.	\$100,325	-0-
	<u>HYDRO GENERATION OPERATING EXPENSE</u>		
E 715	Supervision & Engineering	\$ 2,005	-0-
E 716.1	Hydraulic Labor	1,225	-0-
E 716.2	Prime Movers & Generator Labor	1,901	-0-
E 716.3	Electric Labor	3,280	-0-
E 716.4	Miscellaneous Station Labor	1,180	-0-
E 718.3	Station Expense	1,137	-0-
	Total Hydro Operating Exp.	\$ 10,728	-0-
	<u>HYDRO MAINTENANCE EXPENSE</u>		
E 719	Supervision & Engineering	\$ 925	-0-
E 720	Structures & Improvements	315	-0-
E 721	Reservoirs, Dams, & Waterways	1,220	-0-
E 722.3	Misc. Power Plant Equipment	813	-0-
	Total Hydro Maint. Expenses	\$ 3,273	-0-
	TOTAL HYDRO GENERATION EXP.	\$ 14,001	-0-

<u>Code</u>		<u>Estimated</u> <u>1955</u>	<u>Estimated</u> <u>1956</u>
<u>DIESEL GENERATION OPERATING</u>			
	<u>EXPENSES</u>	\$	\$
E 727	Operation Supervision & Engr.	2,255	6,000
E 728.1	Engine Labor	22,705	12,000
E 728.2	Electric Labor	910	4,800
E 728.3	Miscellaneous Station Labor	13,345	6,000
E 729	Engine Fuel	31,955	12,000
E 730.1	Water	200	200
E 730.2	Lubricants	2,000	500
E 730.3	Station Supplies	590	600
E 730.4	Station Expenses	<u>6,400</u>	<u>600</u>
Total Diesel Operation Exp.		\$ 80,360	\$ 42,700

<u>DIESEL MAINTENANCE EXPENSES</u>			
E 731	Maintenance Supervision & Engr.	\$ 14,000	\$ 6,000
E 732	Maintenance of Structures & Improvements	2,330	2,400
E 733	Fuel Holders	2,340	600
E 734.1	Maintenance of Engines	33,065	24,000
E 734.2	Maintenance of Generators	180	180
E 734.3	Accessory Electric Equip.	185	180
E 734.4	Maintenance of Misc. Power Plant Equipment	7,325	600
E 735	Rents	<u>30</u>	<u>30</u>
Total Diesel Maint. Expenses		\$59,755	\$ 33,990

TOTAL DIESEL GENERATION			
EXPENSES	\$ 140,115	\$ 76,690	

COST OF POWER

E 738	Purchased Power	\$ 523,205	\$ 659,520
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TRANSMISSION EXPENSES -
OPERATION

E 743	Operation Supervision & Engineering	\$ 1,080	-0-
E 744	Load Dispatching Labor & Expenses	<u>2,305</u>	<u>-0-</u>
Total Transmission Operation Expenses		\$ 3,385	-0-

<u>Code</u>		<u>Estimated 1955</u>	<u>Estimated 1956</u>
	<u>TRANSMISSION MAINTENANCE EXPENSES</u>		
E 747	Maintenance Supervision & Engineering	\$ 1,190	-0-
	Total Transmission Maintenance Expenses	\$ 1,190	-0-
	TOTAL TRANSMISSION EXPENSES	\$ 4,575	-0-
	TOTAL COST OF POWER	\$ 782,221	\$ 736,210
	<u>DISTRIBUTION OPERATING EXPENSES</u>		
E 756	Supervision & Engineering	\$ 8,230	\$ 8,280
E 757	Load Dispatching	-0-	14,400
E 758.1	Distribution Maps & Records	15,820	20,000
E 758.2	Distribution Office Expense	240	240
E 759.1	Station Labor	1,495	1,500
E 759.2	Station Supplies	235	240
E 760.1	Station Storage Battery	95	90
E 761.1	Overhead Lines	6,470	6,600
E 761.2	Underground Lines	120	600
E 761.3	Removing & Resetting Trans- formers	14,950	7,200
E 762.1	Removing & Resetting Meters	28,000	28,800
E 762.2	Other Services on Customers Premises	7,000	7,200
E 763.1	Operation of Overhead Street Light System	1,200	2,400
	Total Operating Expenses.....	\$ 83,855	\$ 97,550
	<u>DISTRIBUTION MAINTENANCE EXPENSE</u>		
E 764	Supervision & Engineering	\$ 7,870	\$ 8,000
E 765	Structures & Improvements	9,000	3,000
E 766	Station Equipment	600	600
E 767	Maintenance of Storage Battery Equipment	120	120
E 768.1	Poles, Towers & Fixtures	13,945	12,000
E 768.2	Overhead Conductors & Devices	15,000	18,000
E 769.2	Underground Conductors & Devices	600	600
E 770	Line Transformers & Devices	3,500	3,600
E 771	Maintenance of Services	4,500	5,400
E 772	Maintenance of Meters	2,110	1,200

<u>Code</u>		<u>Estimated 1955</u>	<u>Estimated 1956</u>
E 773	Maintenance of Installations on Customers Premises	\$ 395	\$ 600
E 775	Street Lighting & Signal Systems	16,695	23,200
E 776	Rents	<u>140</u>	<u>120</u>
	Total Maintenance Expenses	\$ 74,475	\$ 76,440

CUSTOMER ACCOUNTING AND
COLLECTION EXPENSES

E 780.3	Meter Reading	\$ 20,020	\$ 19,800
E 781	Billing & Collecting	102,770	109,095
E 783	Uncollectible Accounts	<u>-0-</u>	<u>4,000</u>
	Total Customer Accounting & Collecting Expenses	\$122,790	\$132,895

ADMINISTRATIVE & GENERAL
EXPENSES

E 790	Salaries of General Officers	\$ 13,556	\$ 13,500
E 791	Other General Office Salaries	13,000	13,000
E 792.1	Expenses of General Officers	500	1,900
E 793	General Office Supplies & Expenses	4,725	5,000
E 795	Special Services	14,510	25,000
E 797	Regulatory Commission Exp.	110	-0-
E 798	Insurance-Losses & Damages	11,000	11,030
E 799	Insurance-Injuries & Damages	11,034	11,745
E 800.1	Employees Welfare Expenses	2,100	2,100
E 800.2	Pension	4,600	5,065
E 801	Miscellaneous General Exp.	1,400	3,600
E 802.1	Maint. of Structures and Improvements	400	400
E 802.2	Maint. Office Furniture & Equipment	200	200
E 802.3	Maint. Communication Equip.	4,020	5,000
E 802.4	Maint. of Misc. Property	600	600
E 803	Rents	<u>9,000</u>	<u>9,000</u>
	Total Administrative & General Expenses	\$ 90,755	\$ 107,140

<u>Code</u>		<u>Estimated 1955</u>	<u>Estimated 1956</u>
<u>CLEARING ACCOUNTS</u>			
E 902	Stores Expense	\$ 28,750	\$ 20,100
E 903	Transportation Expense	12,000	12,000
E 904	Laboratory Expenses	200	200
E 905	Shop Expenses	850	900
E 909	Approved National Guard Leave	<u>200</u>	<u>200</u>
	Total Clearing Accounts	\$ 42,000	\$ 33,400
<u>OTHER EXPENSES</u>			
E 503	Depreciation	173,191	172,284
E 507	Operating Tax	46,623	53,119
E 530	Interest on Long Term Debt	13,668	5,625
E 255-3	Legal Reserve	43,935	-----
	Total Other Expenses	\$ <u>277,417</u>	\$ <u>231,028</u>
<u>OTHER RESERVE DEDUCTIONS</u>			
	Transfer to General Fund	360,000	312,000
	Reserve for Bonded Debt	40,000	-----
	Construction Fund	<u>318,149</u>	<u>405,421</u>
TOTAL MUNICIPAL LIGHT & POWER			
	BUDGET.....	\$2,191,662	\$2,132,084

Comparative Statement of Income & Expense:

	<u>Actual 1954</u>	<u>Estimated 1955</u>	<u>Estimated 1956</u>
Operating Revenues	\$2,334,791	\$2,018,471	\$1,959,800
Less:			
Operating Expenditures	1,295,030	1,242,719	1,236,754
Depreciation	<u>194,364</u>	<u>173,191</u>	<u>172,284</u>
Net Operating Income	845,397	602,561	550,762
Less: Interest Expense	<u>38,737</u>	<u>13,668</u>	<u>5,625</u>
Net Income	\$ 806,660	\$ 588,893	\$ 545,137

Appropriation of Net Income:

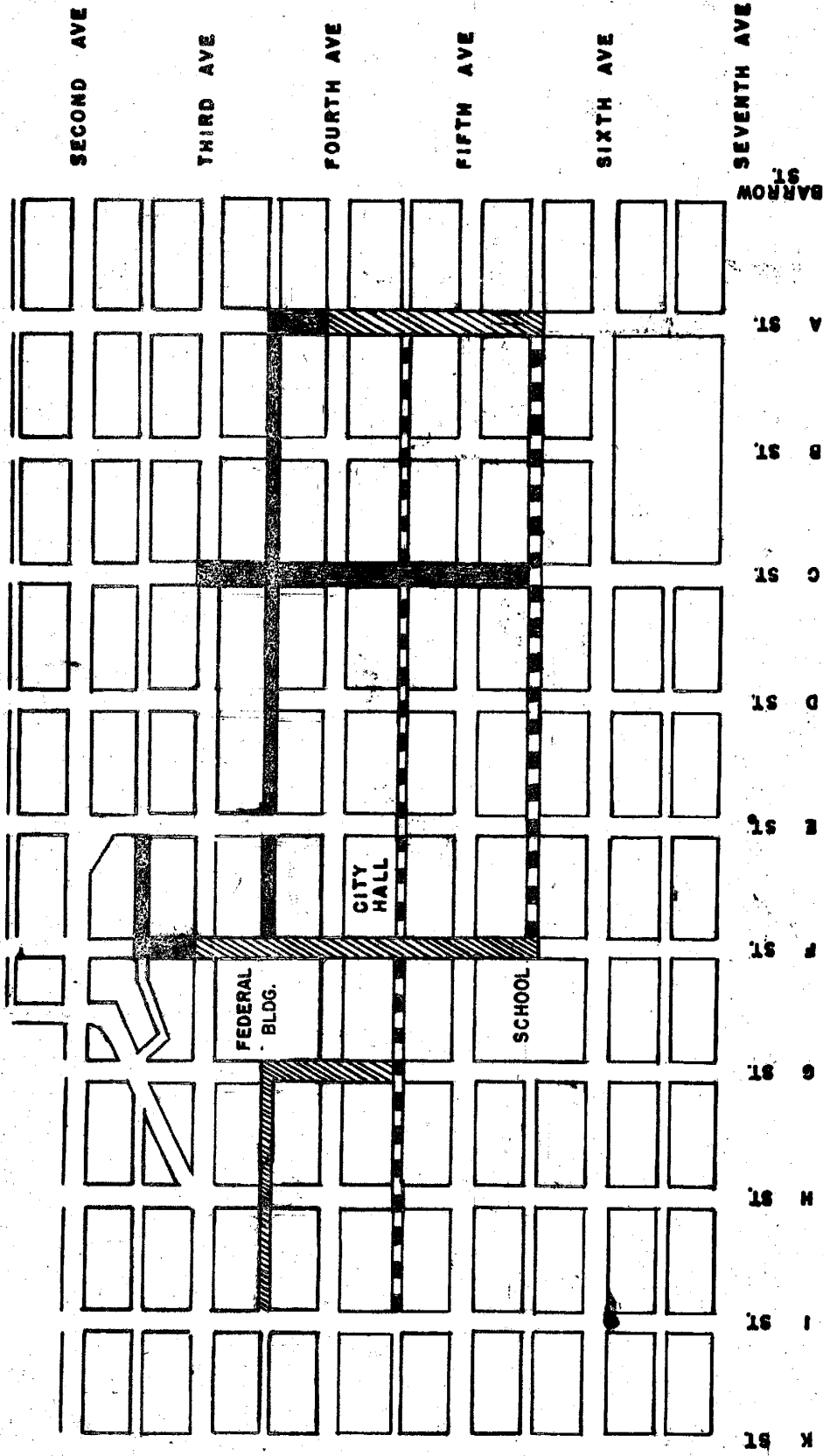
Contribution to General Fund	359,320	360,000	312,000
City Equity Increase	216,483	228,893	233,137
Unappropriated Surplus	<u>230,857</u>		
Totals.....	\$ 806,660	\$ 588,893	\$ 545,137

1956 WORK PROGRAM - ELECTRIC UTILITY

There is no detailed explanation of the various work items to be performed in the general maintenance and operation functions of the electric distribution and generation system. The work program, as presented, deals specifically with changes from the routine operations and with new construction of facilities. The major projects are briefly described as follows:

Distribution Plant Changes - Major

An extensive underground installation was commenced in 1955, as shown on the separate drawing. The duct system has been installed in the shaded portions. The cross hatched section indicates that portion planned for 1956 installation. The remainder will be installed in 1957. The underground construction is planned to proceed alley paving in the business areas. During 1956, cable will be placed in 3-4 alley from "C" to "A" Street and on "C" Street to fully utilize all feeder positions on Station No. 3.



EST. COST

\$ 110,000

\$ 180,000

\$ 66,000

\$ 326,000

1955 UNDERGROUND DUCT INSTALLATION

1956 UNDERGROUND DUCT PROPOSED

FUTURE UNDERGROUND DUCT PROPOSED

TOTAL DUCT SYSTEM ONLY (DOES NOT INCLUDE TRANSFORMERS, CABLE, ETC.)

This budget provides for the installation of 200 street lights. The exact location of all of the 200 is not definite at this time, but a general plan of lighting is proposed for Mountain View, City View Horizon, Eastchester Flats, Post Road to the City Limits and those parts of Fairview that were annexed to the City. A small number of lights will be available for those locations that were missed in the street lighting project of 1951-52.

As of December 31, 1955, the City will have 1101 street lights in operation, an increase of 131 over the preceding year.

The department plans the construction of 8,000 feet of single circuit 34.5 K.V. transmission line from Anchor Park substation to the Bureau substation. This is necessary in order to release to CEA a circuit now being leased from them.

A considerable load is being added in the industrial area bordering Post Road. To meet this demand, the 1500 KVA substation presently located in the rear of the City Hall will be moved to a location to be selected upon the completion of a study presently being made.

A double circuit transmission line section is to be constructed from the diesel plant along First Avenue to East "N" Street. One of the circuits will replace an existing alley north of First Avenue, the second circuit will eventually be extended to the Bureau substation.

Planning for extensions and improvements to the City electric distribution system cannot be properly engineered until some definite decisions have been made on when and how the department is to serve all the residents of the City of Anchorage, as designated by the City Council and the voters' policy. Not only does this apply inside the city limits, but it also applies on out-of-city distribution where definite improvements should be made, such as the replacement of Northern Lights substation, increasing transformer capacities in various areas, and the extending of lights to several new customers. When the area of service decisions are finally made, the City Electrical Department can then go forward in a progressive program of bringing its distribution system up to desirable engineering standards.

Distribution Plant Changes - Minor

There were 40 transformers added to the system for a net increase of 708 KVA in 1955. It is estimated that 50 transformers will be added during 1956 for a net increase of 200 KVA.

In 1955 270 new meters were set and 300 are estimated for 1956. These meters represent new accounts.

The system now consists of 68.7 pole miles of low voltage distribution for an increase of 2.7 pole miles over 1954. There are 15 pole miles of high voltage distribution for no change over the preceding year.

GENERATION:

The alterations to the new diesel plant to provide for the installation of the generating unit that was used at Eklutna will be complete in 1956. In addition, a centralized CO 2 fire extinguisher system will be installed throughout the diesel plant. The generation plant must be recognized as a stand-by facility in the event that the main supplier of power, the Eklutna hydro-project, should become inoperative or that the transmission lines would be temporarily damaged. It is definitely to the City's advantage to use a stand-by facility to generate power during peak periods of consumption. This operation permits the City to obtain power from the Eklutna Project at the lowest possible cost without paying premiums for peak period energy demand. Since the plant is maintained as stand-by, the actual cost of generating peaking power is considered to be only fuel costs with some allowance for machinery depreciation. Actually only one or two units of the plant are operated for an average of 1-1/2 hours per day on week days.

MAJOR EQUIPMENT:

The installation of a "Craneveyor" for the handling of poles and transformers is planned. This equipment will allow the storage of all poles and most transformers in an area 100 x 100 feet. Inventory of poles will be greatly simplified. Cost of handling poles will be reduced to half the present cost.

Fifteen intersections of traffic signals are proposed in 1956. Exact locations for some of these installations are to be determined by the traffic engineer after further traffic studies.

A piece of equipment similar to the "Sky Master" is included in this budget. This equipment will allow men to work on lines from a safe working basket. It will be possible to work on equipment that is presently inaccessible without considerable labor to either lower it to the ground or do other work to make it accessible. It will be particularly useful on street light, traffic signal and hot line work.

A new glove tester is included in this budget. The present tester is homemade and is not reliable. All gloves should be tested once each month and certified that they will withstand the voltage stamped on them. This certification cannot be made with the homemade tester. Operation of the present equipment is hazardous to personnel.

A summary listing of the capital expenditures for 1956 follows:

CAPITAL EXPENDITURES FOR 1956

W.O. No.			
E 1. - 358	Purchase & install transformers		\$ 18,000
E 2. - 362	Purchase & install meters		6,000
E 3. - 359	Run new services		15,000
E 4. - 377	Tools & Equipment		
	3-Small parts cabinets	150	
	1-Electric pipe threader	<u>400</u>	550
E 5. - 372	Office Equipment		
	1-Blue Print Cabinet	400	
	1-Steel Desk, Grey	200	
	1-Supply Cabinet #3487	70	
	1-I.B.M. Typewriter	<u>600</u>	1,270
E 6. - 373	Transportation Equipment		
	1-Sky Master	10,000	
	1-Truck(2 or 3 Ton)	<u>8,000</u>	18,000
E 7. - 378	Communication Equipment		
	1-AC 25 Watt Radio Station		
	L 43 GGV	425	
	1-Radio T 33 GGV	<u>460</u>	885
E 8. -Several	Street Lights & Signal Systems		140,000
E 9. - 376	Laboratory Equipment		
	1-Glove Tester		4,000
E 10.-Several	Extensions to serve new business		10,000
E 11.-Several	Replacement construction due to increased load or deterioration		10,000
E 12.- 374	1 Craneveyor		12,000
E 13.- 375	1 Drill Press		250
			<u>\$235,955</u>
Remaining Capital for allocation to work order projects			<u>169,466</u>
TOTAL CAPITAL EXPENDITURE FUND.....			\$405,421