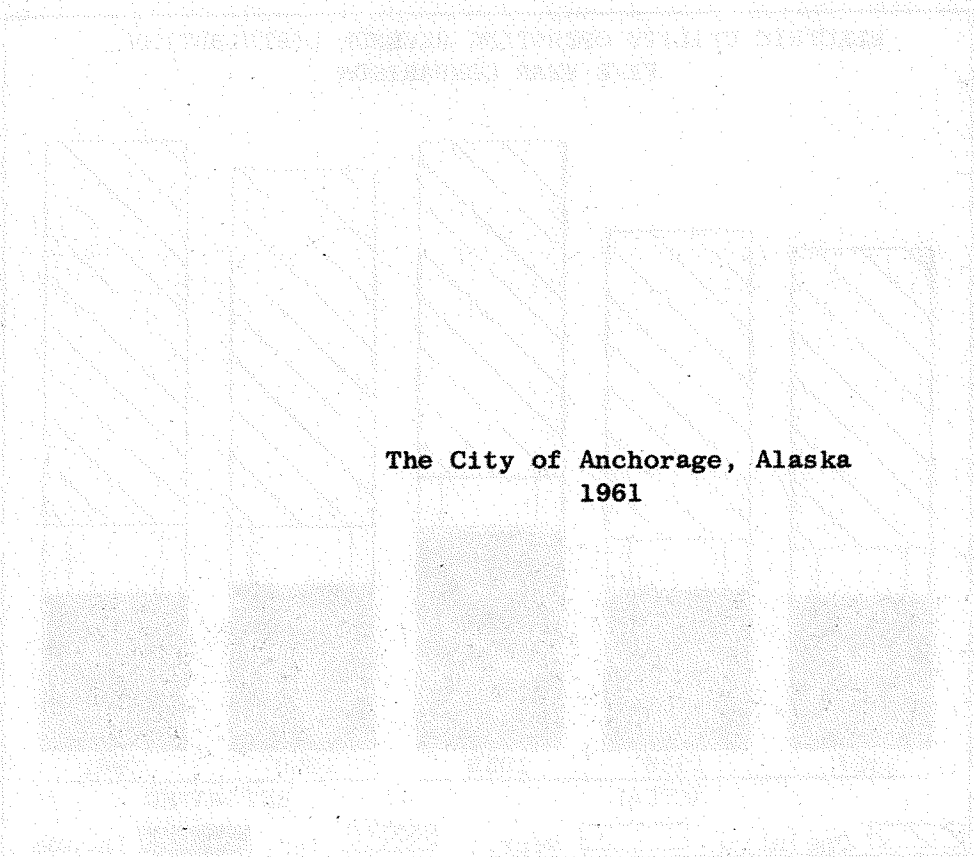
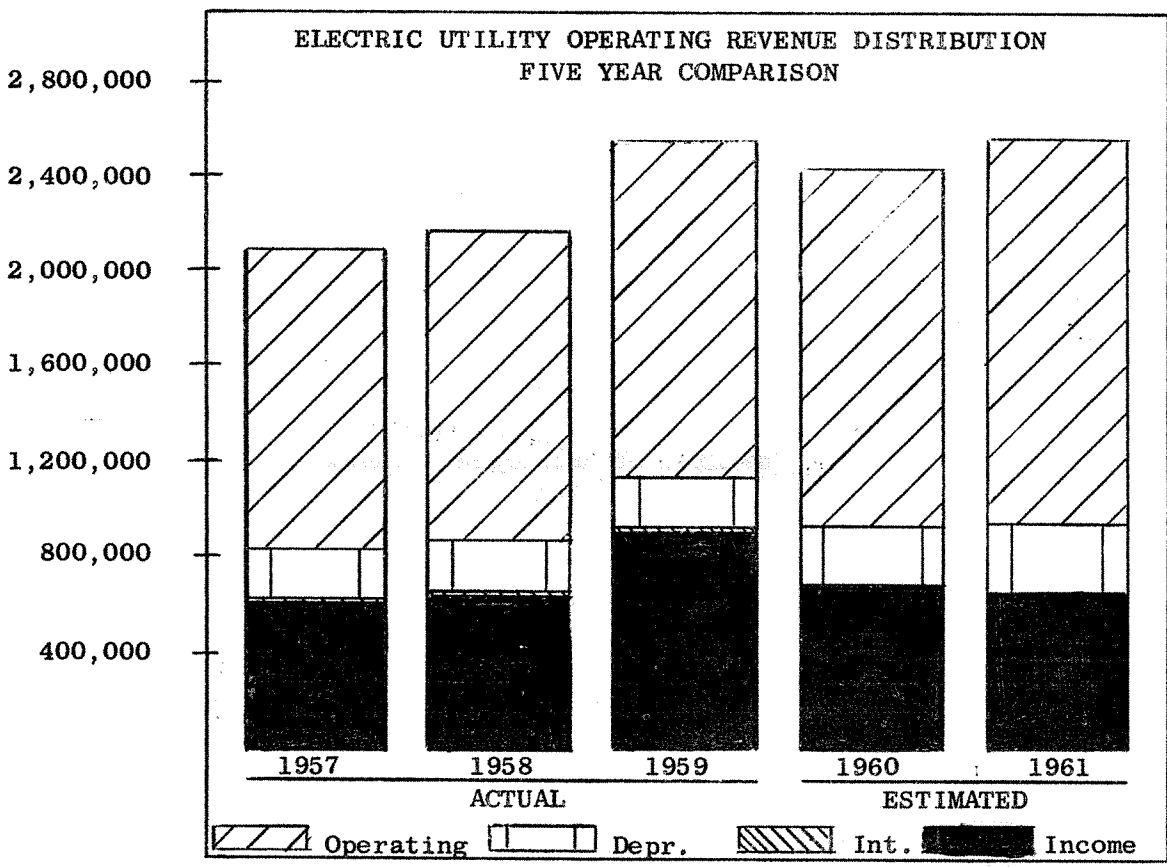
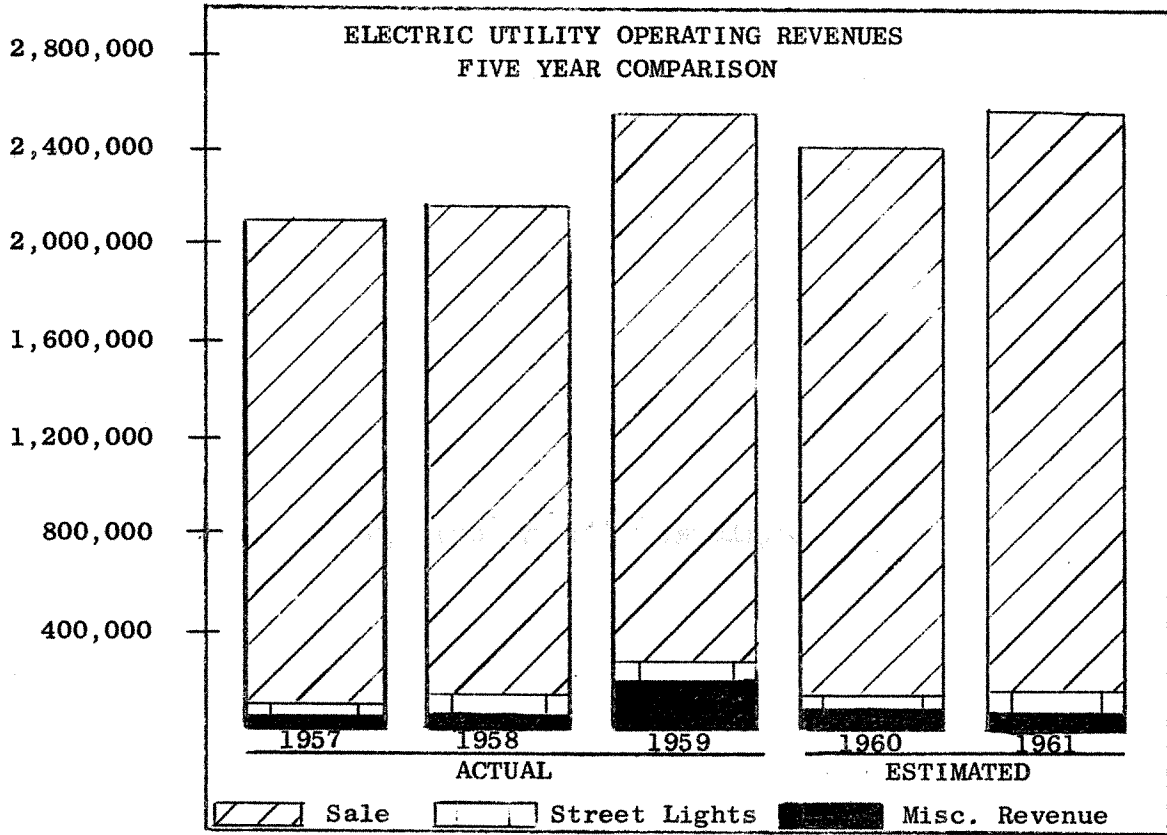


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ELECTRIC UTILITY FUND
1961 BUDGET

BUDGET SUMMARY

	<u>Estimated 1960</u>	<u>Estimated 1961</u>
<u>REVENUES</u>		
Estimated Revenues	\$ 2,472,805	\$ 2,573,273
Depreciation	<u>221,500</u>	<u>274,497</u>
TOTAL ESTIMATED FUNDS AVAILABLE	\$ 2,694,305	\$ 2,847,770
<u>EXPENDITURES</u>		
Total Diesel Generation	\$ 128,115	\$ 93,280
Other Power Supply Expenses	911,950	977,240
Total Power Production Expenses	\$ <u>1,040,065</u>	\$ <u>1,070,520</u>
Distribution Operation	\$ 112,295	\$ 120,370
Distribution Maintenance	73,460	82,720
Total Distribution Expense	\$ <u>185,755</u>	\$ <u>203,090</u>
Customer Accounts Expenses	\$ 182,500	\$ 161,600
Sales Expenses	5,275	6,000
Clearing	12,725	-
Administration & General Expenses	111,290	110,811
Total Accounting & Administrative Expenses	\$ <u>311,790</u>	\$ <u>278,411</u>
Other Expenses	\$ 221,500	\$ 321,277
Transfer to General Fund	\$ 435,038	\$ 456,544
Construction Fund	\$ 493,400	\$ 517,928
Unappropriated Balance	\$ <u>6,757</u>	\$ <u>- -</u>
TOTAL EXPENSES	\$ 2,694,305	\$ 2,847,770

ELECTRIC UTILITY FUND
1961 BUDGET

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
<u>SALES OF ELECTRICITY</u>			
3440	Residential Sales	\$ 813,546	\$ 817,273
3442	Commercial & Industrial Sales	1,379,809	1,525,000
3444	Public Street Lighting	86,800	95,000
*	Water Heating	55,050	-
3448	Interdepartmental Sales	66,600	65,000
	Total Sales of Electricity	<u>\$ 2,401,805</u>	<u>\$ 2,502,273</u>
* Water Heater Account No. E606 deleted and included in Residential and Commercial Sales.			
<u>OTHER OPERATING REVENUES</u>			
3450	Forfeited Discounts	\$ 20,000	\$ 20,000
3451	Miscellaneous Service Revenues	6,000	6,000
3456	Other Electric Revenues	45,000	45,000
	Total Other Operating Revenues	<u>\$ 71,000</u>	<u>\$ 71,000</u>
	TOTAL OPERATING REVENUES	<u>\$ 2,472,805</u>	<u>\$ 2,573,273</u>
<u>NON-OPERATING REVENUES</u>			
	Depreciation Reserve	<u>\$ 221,500</u>	<u>\$ 274,497</u>
	TOTAL RESOURCES	<u>\$ 2,694,305</u>	<u>\$ 2,847,770</u>

EXPLANATION OF ELECTRIC REVENUE ESTIMATES:

1961 will be the first full year of experience under the rates as established July 1, 1960. Therefore, revenue estimates are based on the experience during the first half of 1960 and evaluated by applying reductions estimated by our Rate Engineers.

The Federal Power Commission has instituted a new set of account numbers, as of January 1, 1960, and these will be used. Also, the account formerly referred to as 'Water Heating' has been dropped and combined with the Residential and Commercial accounts.

Account No. 3440 - Residential Sales. This account indicated a 4% increase during the early part of 1960, but it is estimated that the rate to the average user would be reduced 6.1%, leaving a net reduction of revenue of 2%. However, with the combining of this account and the water heating account in part, there appears to be a small increase in revenue.

Account No. 3442 - Commercial and Industrial Sales. This account appeared to be increasing at the rate of 17%. The estimated rate reduction is 7.1% for C-1, and 7.5% for C-3. It is therefore assumed that the increase will be in the order of 9% plus a portion of the water heating revenue, which in future years may be lost to natural gas.

Account No. 3444 - Public Street Lighting. This rate was not changed by the Rate Study, since it is already very marginal. The increase shown is actual amount, plus proposed additions in the City and new annexation areas.

Account No. 3448 - Interdepartmental Sales. This revenue account includes revenues for power sold to other City departments, and shows a reduction due to reduction of rates, in spite of some estimated increased usage.

Account No. 3450, No. 3451, No. 3456 - Other Operating Accounts. These accounts are estimated not to change.

ELECTRIC UTILITY FUND EXPENDITURES

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
POWER PRODUCTION EXPENSES			
<u>DIESEL POWER GENERATION</u>			
Operation			
3546	Operation Supervision & Engineering	\$ 7,100	\$ 7,350
3547	Fuel	34,500	20,000
3548	Generation Expenses	27,840	29,250
3549	Misc. Other Power Generation Expenses	1,665	1,800
3550	Rents	30	30
	Total Operation Expenses	\$ <u>71,135</u>	\$ <u>58,430</u>
Maintenance			
3551	Maintenance Supervision & Engineering	\$ 6,700	\$ 7,350
3552	Maintenance of Structures	6,100	6,500
3553	Maintenance of Generating & Electric Plant	43,580	20,000
3554	Maintenance of Misc. Other Power Gener- ation Plant	600	1,000
	Total Maintenance Expenses	\$ <u>56,980</u>	\$ <u>34,850</u>
	TOTAL DIESEL POWER GENERATION EXPENSES	\$ 128,115	\$ 93,280
<u>OTHER POWER SUPPLY EXPENSES</u>			
3555	Purchased Power	\$ 907,250	\$ 972,240
3556	System Control & Load Dispatching	<u>4,700</u>	<u>5,000</u>
	TOTAL OTHER POWER SUPPLY EXPENSES	\$ 911,950	\$ 977,240
	TOTAL POWER PRODUCTION EXPENSES	\$ 1,040,065	\$ 1,070,520
	Estimated Kilowatt Hours	89,000,000	96,000,000
	Estimated Average Cost-Mills per Kwh	11.7	11.2

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
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DISTRIBUTION EXPENSES

Operation

3580	Operation Supervision & Engineering	\$ 8,650	\$ 9,000
3582	Station Expense	2,050	2,200
3583	Overhead Line Expenses	30,000	30,000
3584	Underground Line Expenses	2,100	4,500
3585.1	Street Lighting System Expenses	775	900
3585.2	Signal System Expenses	4,400	6,000
3586	Meter Expenses	36,400	38,200
3587	Customer Installations Expenses	5,200	5,500
3588	Miscellaneous Distribution Expenses	21,150	22,500
3589	Rents	1,570	1,570
	Total Operation Expenses	\$ 112,295	\$ 120,370

Maintenance

3590	Maintenance Supervision & Engineering	\$ 8,200	\$ 9,000
3591	Maintenance of Structures	300	600
3592	Maintenance of Station Equipment	1,400	2,000
3593	Maintenance of Overhead Lines	32,000	33,000
3594	Maintenance of Underground Lines	1,200	2,000
3595	Maintenance of Line Transformers	6,000	7,000
3596.1	Maintenance of Street Lighting System	14,250	17,000
3596.2	Maintenance of Signal System	9,600	11,500
3597	Maintenance of Meters	450	500
3598	Maintenance of Misc. Distribution Plant	60	120
	Total Maintenance Expenses	\$ 73,460	\$ 82,720
	TOTAL DISTRIBUTION EXPENSES	\$ 185,755	\$ 203,090

CUSTOMER ACCOUNTS EXPENSES

Operation

3902	Meter Reading Expenses	\$ 29,900	\$ 31,000
3903	Customer Records & Collection Expenses	148,600	126,600
3904	Uncollectible Accounts	4,000	4,000
	TOTAL CUSTOMER ACCOUNTS EXPENSES	\$ 182,500	\$ 161,600

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
	<u>SALES EXPENSE</u>		
	Operation		
3913	Advertising Expenses	\$ 4,500	\$ 4,500
3914*	Revenues from Merchandising, Jobbing, and Contract Work		
3915*	Cost & Expenses of Merchandising, Jobbing, and Contract Work		
3916	Miscellaneous Sales Expenses	<u>775</u>	<u>1,500</u>
	TOTAL SALES EXPENSES	\$ 5,275	\$ 6,000

*These accounts are credit & debit and any credits are included in the Misc. Revenues.

ADMINISTRATION AND GENERAL EXPENSES

	Operation		
3920	Administrative & General Salaries	\$ 38,440	\$ 33,000
3921	Office Supplies & Expenses	6,600	7,000
3923.2	Outside Services Employed	12,600	12,000
3923.1	Legal Services	13,890	14,691
3924	Property Insurance	8,085	7,500
3925	Injuries and Damages	6,600	9,500
3926	Employee Pensions & Benefits	5,500	6,500
3928	Regulatory Commission Expenses	-	-
3930	Miscellaneous General Expenses	950	1,000
3931	Rents	<u>16,925</u>	<u>16,920</u>
	Total Operation Expenses	\$ 109,590	\$ 108,111
	Maintenance		
3932.1	Maintenance of General Plant	\$ 700	\$ 700
3932.2	Maintenance of Communication Equipment	<u>1,000</u>	<u>2,000</u>
	Total Maintenance Expenses	\$ 1,700	\$ 2,700
	TOTAL ADMINISTRATION & GENERAL EXPENSES	\$ 111,290	\$ 110,811
*	CLEARING	\$ 12,725	

*Clearing Account deleted from 1961 Budget and distributed to appropriate accounts.

<u>Code</u>		<u>Estimated 1960</u>	<u>Estimated 1961</u>
<u>OTHER EXPENSES</u>			
3403	Depreciation	\$ 221,500	\$ 274,497
3408	Taxes	-	46,780
3427	Interest	-	-
	TOTAL OTHER EXPENSES	\$ 221,500	\$ 321,277
	TRANSFER TO GENERAL FUND	\$ 435,038	\$ 456,544
	CONSTRUCTION FUND	\$ 493,400	\$ 517,928
	TOTAL EXPENSES	\$ 2,687,548	\$ 2,847,770

1961 MAINTENANCE AND OPERATION:

Power Production Expenses:

These accounts embrace the cost of operating our Diesel Plant, Purchased Power, and Load Dispatching costs.

Diesel Power Generation: Cost of Diesel production is estimated to be reduced about 37%. This is effected by proposed reduction of generation from the Diesel Plant and taking considerable more energy from Eklutna than in former years. This is possible due to our increasing eligibility for dump energy and the probability of a good water year.

Other Power Supply: Cost of Purchased Power is considerably increased in the order of 7% in money, but about 8% in energy. If, however, there is an adverse water year, this will have to be cut back on purchases, making it necessary to run an increased schedule on the Diesel Plant.

System Control and Load Dispatching is increased only to allow for annual increases in wages such as we have experienced in the past.

Average increase for all accounts is in the order of 3%, which is less than the contemplated increase in use.

All expense account numbers and titles have been changed so that exact correlation with 1960 expenses cannot be made. We, however, have shown as far as is possible the relation of these accounts.

Distribution Expenses:

Operation: Operation expense accounts show an increase of about 7%. Most of this is a reflection of the rising cost of labor, and the incorporation of some of the former clearing expense, which will now be directly distributed.

Maintenance: Maintenance expense accounts show an increase of a little over 12% for the same reasons as the Operation increase, plus a contemplated increase in facilities to be maintained, i.e., Traffic Signals.

Customer Accounts Expense:

These operating accounts deal with meter reading, billing customer accounts, collecting all accounts, and general accounting procedures. These accounts show a decrease of 11.5% due mainly to economies in accounting and collecting, along with a more equitable distribution of costs.

Sales Expenses:

This group of accounts seems to be a misnomer in the City organization, as we have no formal Sales group. However, Account 3913 - Advertising pays our share of the Monthly Bulletin, and some advertising in news media, such as Electric Power Week, etc. Account 3916 - Miscellaneous Sales Expense covers certain free services performed by the department for other agencies.

Other Expenses:

Depreciation: This account shows the usual increase due to increase of the net City equity.

Taxes: The Department expects to pay to the City General Fund taxes in the amount of 2% of the 1960 revenue.

Transfer to General Fund:

This account increased about 5% due to the increase of gross plant value.

Construction Fund:

This account should increase at the same rate as Transfer to General Fund, but due to insufficient estimated revenues, the increase will be somewhat less. The total allowable for this account is \$559,837, but only \$517,928 is available, or \$41,909 less than expected.

CONSTRUCTION FUND

Work
Order

MINOR ITEMS

3-1-368	Purchase and Install Transformers	\$ 55,000
3-2-370	Purchase and Install Meters	16,500
3-3-369	Install New Services	13,500
3-4-394	Purchase Tools and Equipment	2,330
3-5-391	Purchase Office Equipment	1,370
3-6-392	Transportation Equipment	-
3-7-397	Communication Equipment	10,650
3-8-several	Street Light & Signal System	56,400
3-9-395	Purchase Laboratory Equipment	915
3-10-several	Install Short Line Extensions	25,000
3-11-several	Miscellaneous Plant Replacements	<u>28,000</u>

Total Blanket Work Orders \$ 209,665

MAJOR ITEMS

Extension to Filtration Plant	\$ 35,000
Fence Diesel Substation	1,800
Street Lights - College Village	9,500
Pole Protection - Ship Creek	7,000
Purchase three spare Substation Breakers	9,000
Install Substation, Bluff Road	20,000
Purchase & Install 3750 KVA Substation	100,000
Rebuild Distribution Feeder Ties	40,000
Extensions to New Customers & Subdivisions	<u>86,003</u>

Total Major Items \$ 308,303

TOTAL CONSTRUCTION FUND \$ 517,968

DETAIL OF MINOR CONSTRUCTION FUND

3-1-368	Purchase and Install Transformers			\$ 55,000
3-2-370	Purchase and Install Meters			16,500
3-3-369	Install New Services			13,500
3-4-394	Purchase Tools and Equipment			
	Hot Line Tools & Protective Equip.	\$ 1,200		
	Pipe Detector	220		
	Gas Testing Equipment	110		
	Generating Plant	400		
	Engineer's Dumpy Level	<u>400</u>		
				2,330
3-5-391	Purchase Office Equipment			
	Adding Machine(replacement)	\$ 350		
	Calculator (replacement)	850		
	Lino-Time	70		
	Copy Machine attachment	<u>100</u>		
				1,370
3-6-392	Transportation Equipment			- -
3-7-397	Communication Equipment			
	Fire Department			
	3 mobile units	\$ 1,950		
	1 remote control unit	100		
	3 remote console units	<u>900</u>	\$ 2,950	
	Public Works Department			
	2 mobile units	1,300		
	2 remote console units	<u>600</u>	1,900	
	Police Department			
	2 mobile units	1,300		
	3 remote console units	900		
	2 Handie Talkies	<u>1,250</u>	3,450	
	Joint Police & Fire			
	Emergency Equipment			
	1 transmitter & receiver	650		
	1 antenna	<u>100</u>	750	
	Electric Department			
	1 mobile unit	650		
	1 control head	100		
	laboratory equipment	<u>850</u>	<u>1,600</u>	
				10,650
3-8-373	Install Street Lights & Signal Systems			
	Street Lights			20,000
	Traffic Signals			
	4th & Gambell (fixed to radio controlled)	\$ 3,800		
	5th & Gambell (fixed to radio controlled)	3,800		
	6th & Gambell (new)	4,900		

	9th & Gambell (fixed to radio controlled)	3,800	
	12th & L Street (add new controls)	2,000	
	3rd & E Street (new)	4,900	
	East 5th & Airport Heights Road (additional signals)	4,000	
	Bragaw & Freeway (new)	4,800	
	15th & C Street (new)	<u>4,400</u>	\$ 36,400
3-9-395	Purchase Laboratory Equipment		
	0-600 volt Voltmeter	\$ 440	
	Photocell Calibrator	<u>475</u>	915
3-10-several	Install Short Line Extensions		25,000
3-11-several	Miscellaneous Plant Replacements		<u>28,000</u>
	TOTAL.		\$ 209,665

MINOR ITEMS:

This group consists of routine work orders which are considered each year and approved as blanket work orders.

Work Order No. 3-1 Purchase & Install Transformers. This work order is increased \$25,000 over 1960, which reflects increase in load and more specifically an increase in large-use customers, which require high capacity transformers.

Work Order No. 3-2 Purchase and Install Meters. This work order is increased 10% to reflect the increase in new electrical loads.

Work Order No. 3-3 Install New Services. This work order is increased 10% to reflect the increase in new electrical services.

Work Order No. 3-4 Purchase Tools and Equipment. New and additional tools and equipment are required to maintain service, for protection of men, and for detecting underground water and gas mains.

Work Order No. 3-5 Purchase Office Equipment. New office equipment is necessary to replace old equipment, and to increase office efficiency.

Work Order No. 3-6 Transportation Equipment. Not Used.

Work Order No. 3-7 Communication Equipment. This work order reflects the need for additional equipment for replacement, and new units for expansion of the departments. Also included is the communication equipment necessary for installation in the Public Safety Building.

Work Order No. 3-8 Street Lights and Signal System. There is no change in the Street Light estimate. The Traffic Signal estimate has been materially increased to include proposed installations, at the request of the Traffic Engineering Department.

Work Order No. 3-9 Purchase Laboratory Equipment. Additional equipment is needed to maintain service and to maintain street lights.

Work Order No. 3-10 Install Short Line Extensions. This is increased \$2,700 over 1960, due to increased new areas being subdivided.

Work Order No. 3-11 Miscellaneous Plant Replacement. This is increased \$3,000 over 1960, due to general load increase in the area.

MAJOR ITEMS:

The majority of the smaller items is anticipated construction for the serving of new customers and for necessary plant installation.

The purchase of spare substation air circuit breakers is necessary to maintain existing service and to allow for maintenance of equipment more economically and with less customer inconvenience.

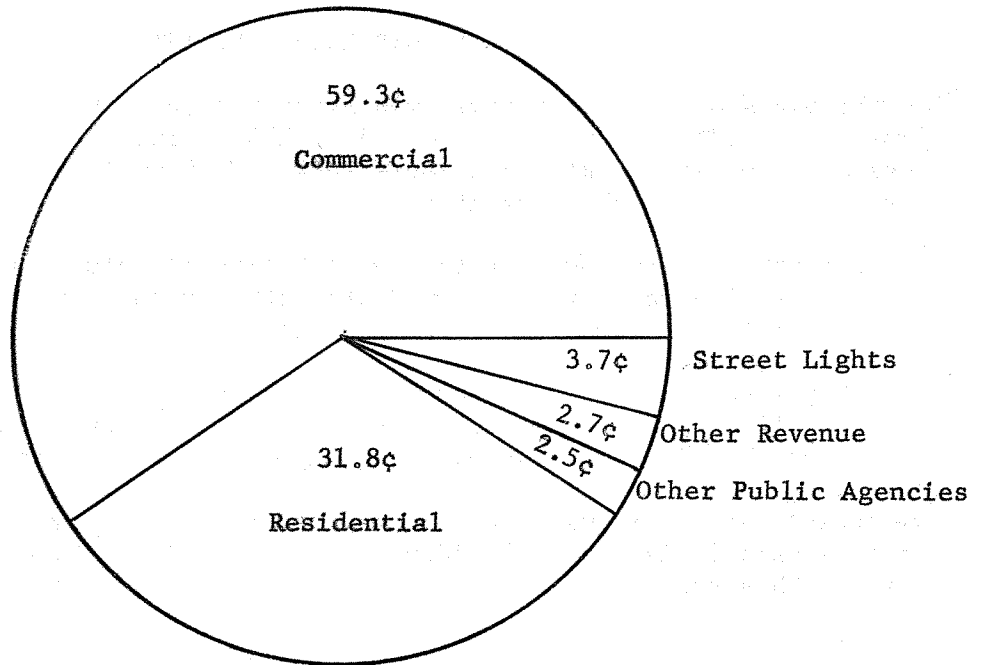
The present 1500 KVA substation located at Seventh Ave. and A Street is being replaced this year by a 5000 KVA unit. The existing station will be relocated to Bluff Road to serve the increasing commercial load north of Ship Creek. The present substation serving this area plus the rest of Government Hill is now at full load and will be overloaded in 1961.

Purchase and install 3750 KVA Substation. The present two 1000 KVA substations on Artic Blvd. at Northern Lights and 29th Avenue are now fully loaded and by the fall of 1961 will be overloaded. This installation will replace both small substations. This station will also allow the City to provide a second source of power to the State Mental Hospital and Providence Hospital, thus greatly increasing electrical service reliability.

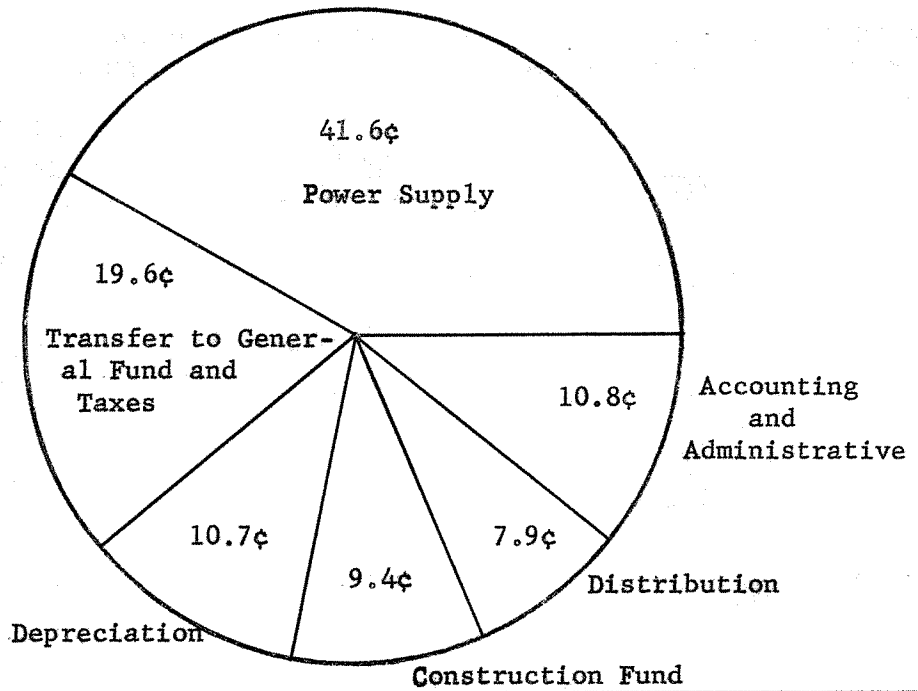
Rebuild distribution feeder ties. Since the load on our 4160 volt system has increased to necessitate the replacement of 1500 KVA substations with 5000 KVA units, the present feeder ties between substations are inadequate in size. This item contemplates replacing these ties with larger conductors to carry the additional load on our system. This work is necessary to assure reliable service in the downtown area.

The extensions to new customers and subdivisions has been increased over 1960 to include services to proposed large office buildings in the area.

ELECTRICAL DEPARTMENT REVENUES
DOLLAR APPROPRIATIONS - 1961



ELECTRICAL DEPARTMENT EXPENSES
DOLLAR APPROPRIATIONS - 1961



CITY OF ANCHORAGE

TEN YEAR LOAD FORECAST

On the basis of the first seven months of the year 1960, there is an apparent growth of 12.7% over the same period of 1959. This will bring the total purchased and generated kilowatt hours to about 89 million for 1960 which, needless to say, is an all time high.

It is further estimated that the availability of natural gas as a fuel in the locality will perhaps in the immediate future reduce this rapid rate of growth. It is therefore assumed that the rate will be a conservative 8%.

The City's service area is limited because the Electric Utility is surrounded by the Military on the north, the sea on the west, and by a Rural Cooperative on the south and east. Therefore, future growth must come from more concentrated use of the available land by business, institutions, and residences. We expect that there will be considerable vertical growth in coming years. That is, small inadequate buildings will be replaced by multiple story structures. This trend is presently in evidence with several buildings newly completed, under construction, or strongly proposed.

The experience during the ten years past is in the order of 9%, and varies by years from no increase to as high as 34% in peak load increase. The kilowatts purchased and generated increased at an average rate of 11%.

We therefore feel that it is in order to use the conservative figure of 8% for both peak demand and kilowatt hours generated and purchased. Following is a tabulation of these values.

<u>Year</u>	<u>KW Peak</u>	<u>Kwh Purchased & Generated(X 1000)</u>
1960	19,000	89,000
1961	20,700	96,000
1962	22,500	104,000
1963	24,500	112,000
1964	26,700	121,000
1965	29,100	131,000
1966	31,700	141,000
1967	34,500	152,000
1968	37,600	164,000
1969	41,000	177,000
1970	44,700	191,000

These figures indicate that additional source of supply will be required by December, 1962.

Existing capacity is now, from Eklutna 16,000 KW, and from the City Diesels 6,500 KW, a total of 22,500 KW. This indicates that we could possibly just 'squeak by' December, 1962 and possibly the whole winter of 1962-63, if we have no adverse weather, and if all facilities can perform to their maximum, or with some small overload. However, it is not a good gamble, and some reliable source should be built or contracted for to give a margin of at least 15% reserve. This should be a minimum of 3,500 KW, or more ideally, 5,000 K.W.

There are several proposals under study, and the City Council will no doubt have decided on the best course to pursue before this Budget is finalized.

FIVE YEAR FORECAST FUTURE DISTRIBUTION INSTALLATIONS

In 1960 a 5000 KVA substation was installed to replace the 1500 KVA unit at Seventh Avenue and A Street. In 1961, this 1500 KVA unit should be relocated to serve the industrial area north of Ship Creek and the City Port Facility. Also in 1961, we plan to install a 3750 KVA unit at Arctic Blvd. and 29th Ave. to replace two smaller stations now in operation to serve Spenard and to firm up our service to the Mental Health Hospital and the new Providence Hospital.

These installations will relieve the load on all the substations except for No. 4, located at Seventh Ave. and I Street, and No. 6, at Eleventh Avenue and E Street. Additional capacity will be needed to relieve these stations in 1962. We therefore are planning to replace No. 4 Substation with a 5000 KVA unit, and will install the existing No. 4 unit near the Westchester Urban Renewal area, to relieve No. 6, and to provide for the anticipated additional load in the urban renewal area.

Along with the forementioned substation installations will be a general program of "heavying up" our distribution system to carry the additional load.

With these installations completed, the City will have an installed substation capacity of 37,100 KVA. The projected peak demand for 1966 is 31,700 KW, leaving an additional substation capacity of 5,400 KW for growth and emergency use. Therefore, further consideration should be given to having additional capacity in service by the fall of 1966 in order to maintain a surplus for emergency use in case of failure of one of our existing stations.

The Alaska Methodist University has completed two buildings, with an anticipated demand of 300 KW. If they maintain a schedule of at least one new building a year, their load will be a possible demand of 1200 KW in this area by 1965, and a future total demand of 3600 KW or more. With this in mind, the City will have to replace its temporary 600 KVA substation, now serving the University, with a large station in 1962. It would seem logical at this time, and with a definite building program from the University, to install a permanent substation that will meet the future requirements of the University.

