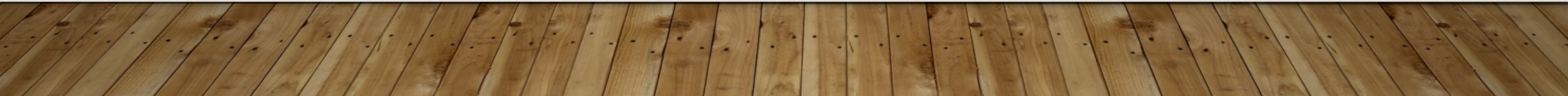


NEW ORLEANS UTILITY HISTORY



EARLY ELECTRICITY USE

- Ice plants were first to use electricity
 - Generated DC electricity from steam and internal combustion engines
 - Distributed excess energy to some homes and businesses in the area
 - Couldn't distribute far due to loss of energy because of use of DC electricity
- AC electricity was developed in 1886
 - Allows distribution over much greater distances and use of transformers to change the high voltage electricity in lines to low voltage electricity for consumers

INITIAL ELECTRICITY IN NEW ORLEANS

- On June 11, 1881 the Southwestern Brush Electric Light and Power Company is incorporated in New Orleans
 - First company to generate and distribute electricity in New Orleans
- Operation started on January 8, 1882 and had 12 generators installed by the end of the year to serve 480 electric arc lights for streets
- In 1886 Edison Electric Illuminated Company was chartered
 - First company to distribute incandescent lighting in New Orleans
- Before 1926, 43 different companies had supplied electricity in the New Orleans area at some point

ELSEWHERE IN LOUISIANA

- Algiers Ice Manufacturing Company organized in Algiers, LA in 1891 and began electric service in Algiers area in 1892
 - Eventually became part of Louisiana Power & Light Company
- Baton Rouge Electric Light and Power Company formed around 1892 to distribute electricity in Baton Rouge area
- Beaumont Ice, Light and Refrigeration Company began electric service to the Beaumont, Texas area
- Both eventually became part of Gulf States Utilities through several mergers and acquisitions

ELSEWHERE IN LOUISIANA (CONT'D)

- In Shreveport, LA on June 29, 1912 three utilities merged to create the Southwestern Gas and Electric Company which later became Southwestern Electric Power Company (SWEPCO)
- Electric Service began in Bunkie, LA in 1914 and was later organized under the Louisiana Ice and Electric Company, Inc. in 1934
 - Renamed Central Louisiana Electric Company (CLECO) in 1945
 - Merged with Gulf Public Service, Inc in 1951
 - Divested and became independent utility in 1981

HARVEY COUCH

- Started a successful telephone company in north Louisiana
 - Sold to Bell Telephone Company in 1911
- Started Arkansas Power Company in 1913
 - Changed name to Arkansas Light & Power Company in 1915
- Started Mississippi Power & Light Company in 1923 and Louisiana Power Company in 1924
- All three companies and NPSI merged to become Middle South Utilities in 1949 which became Entergy in 1989

NOPSI BEGINNINGS

- In 1919, the principal utilities were financially unstable
- Before 1921, numerous companies had overlapping service, damaging competition
- In early 1921, “Citizen’s Committee of Forty” consisting of prominent business leaders suggests a solution of a single utility for electricity, gas, and transit
- In 1922, New Orleans City Government passed the Settlement Ordinance so one new company would be created and partner with the city to control electricity, gas, transit

NOPSI

- In 1922, the first New Orleans Public Service Inc. (NOPSI) appears and acquires New Orleans Railway and Light, Co. (NOR&L)
- Modern NOPSI chartered in January 1926 as an Investor Owned Utility (IOU)
 - Consolidation of Consumers Electric Light and Power Company, Citizen's Light and Power Company, Inc. and previous NOPSI
- Major Railway Strike in 1929
 - Violent strikes by union transit workers which lasted 3 months
- NOPSI reduces rates for some businesses in the 1930s during Great Depression to prevent shutdowns
- "From 1923 to 1985 the average residential consumption of electricity in New Orleans increased 3,000%"

NOPSI GENERATING STATIONS

- Market Street Power Plant was constructed in 1905
 - NOPSI planned on only using Market Street to power all of New Orleans
 - Coal plant
 - Last used in 1973
- In 1947, Industrial Canal Generating Station built
 - Renamed A.B. Paterson Plant in 1952
 - Natural Gas and Oil plant
 - Closed after Hurricane Katrina in 2005
- Three generating units built at Michoud Plant
 - Construction first started in 1957 with 2 more units added in 1963 and 1967
 - Natural Gas power plant
 - Decommissioned in 2016

NEW ORLEANS UTILITY REGULATORY CONTROL

- New Orleans Home Rule Charter grants utility regulatory control to New Orleans City Council
 - New Orleans is a rare case in the country that has this control (Most are regulated by a state level board)
- Louisiana Public Service Commission created in 1921
 - Has regulatory control over all other utilities except for NOPSI (now ENO)
- Voters officially shift regulatory control to LPSC in January 1982
 - Vote was on the Saturday after Thanksgiving on the day of the LSU-Tulane game instead of being postponed for another ballot in February
 - NOPSI and LP&L paid \$250,000 for cost of this special election since regulatory control is the only issue on ballot and the costs would be put on the city
- Control shifts back to City Council in May 1985

GRAND GULF NUCLEAR GENERATING STATION

- Construction is issued in 1970 and begins in 1973 due to electricity demand increasing by about 7% a year
- In 1974, total estimated cost of Grand Gulf 1 and 2 is \$1.2 billion
- Subsequent Arab Oil Embargo, high inflation, and recession in US led to lower electricity demand reducing the need for Grand Gulf
- Second generating unit is cancelled in 1984
- In 1985, final cost of more than \$3.5 billion for only Grand Gulf 1
- Grand Gulf 1 is main reason for regulatory control shifts in early 1980s
- Federal Energy Regulatory Commission allocates energy production and costs to AP&L, MP&L, LP&L, and NOPSI
 - 17% allocated to NOPSI = ~\$13 million a month in costs

NOPSI IN THE 1980S

- In 1983, while LPSC has regulatory control, New Orleans City Council appoints a 20 member task force to investigate municipalization of both NOPSI assets and LP&L assets in Algiers
- According to City Council consultants, LPSC relies heavily on outside consultants themselves for regulatory control
 - Consultants recommend City Council retake regulatory control
- Task force recommends City Council to purchase NOPSI and LP&L in Algiers
 - Differing consultant forecasts on if municipalization would save money
- City Council creates New Orleans Public Power Authority to help prepare in the case of municipalization
 - City Council would set rates and act as the board of directors
- Municipalization push fails even as City Council regains regulatory control

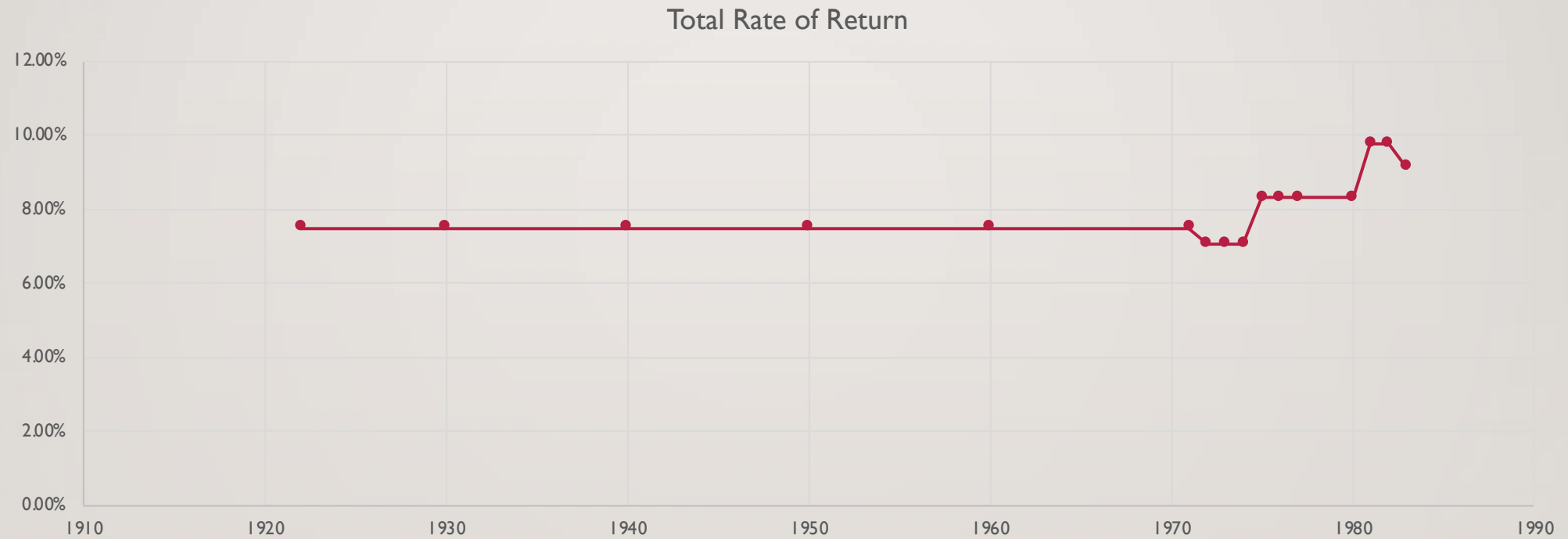
OFFICE OF THE INSPECTOR GENERAL 2015 REPORT

- Office of the Inspector General investigates utility regulatory control in New Orleans
- Report released in 2015 recommends City Council keep regulatory control over utilities for now
 - LPSC shift would likely have lower regulatory costs
 - However, shift could cause New Orleans customers to be underrepresented
- Report states that City Council almost entirely uses outside consultants for regulatory responsibilities
 - Spent \$7,470,000 in 2013 on outside consultants- 97% of total budget
 - Could have caused higher regulatory costs due to lack of in-house staff (only 2 full-time employees)
 - Used 3 of the same consultants since 1987 automatically renewing contracts
- Council displays lack of transparency with its regulatory actions

NOPSI RATES OF RETURN

Year	Overall Rate of Return	Regulator
1922	7.5%	New Orleans Commission Council
1972	7.07%	New Orleans City Council
1975	8.33%	New Orleans City Council
1981	9.78%	New Orleans City Council
1983	9.13%	LPSC
1984	12.45%	LPSC

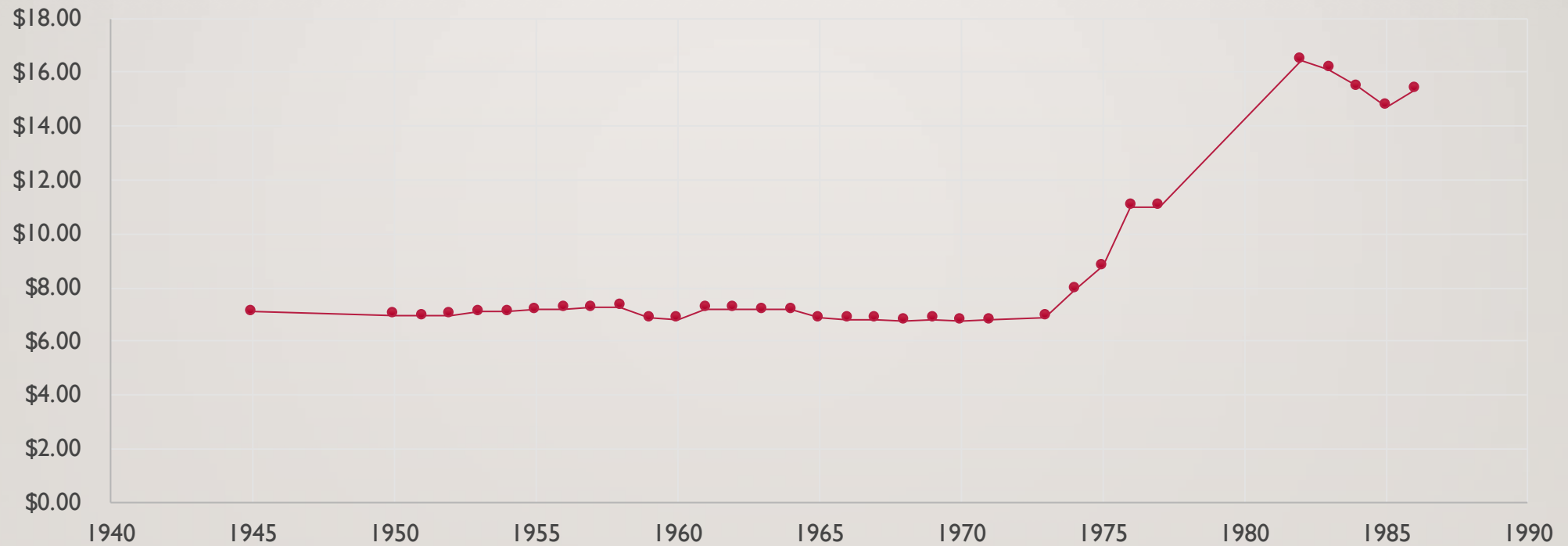
NOPSI TOTAL RATE OF RETURN



AVERAGE BILL PRICES FOR 250 KWH USED

Year	Avg. Bill	Year	Avg. Bill	Year	Avg. Bill	Year	Avg. Bill	Year	Avg. Bill
1945	\$7.10	1957	\$7.23	1965	\$6.85	1974	\$7.90	1986	\$15.35
1950	\$6.98	1958	\$7.30	1966	\$6.80	1975	\$8.78		
1951	\$6.95	1959	\$6.85	1967	\$6.80	1976	\$11.00		
1952	\$6.98	1960	\$6.83	1968	\$6.75	1977	\$11.00		
1953	\$7.08	1961	\$7.20	1969	\$6.80	1982	\$16.45		
1954	\$7.10	1962	\$7.20	1970	\$6.75	1983	\$16.15		
1955	\$7.18	1963	\$7.18	1971	\$6.78	1984	\$15.48		
1956	\$7.20	1964	\$7.18	1973	\$6.88	1985	\$14.75		

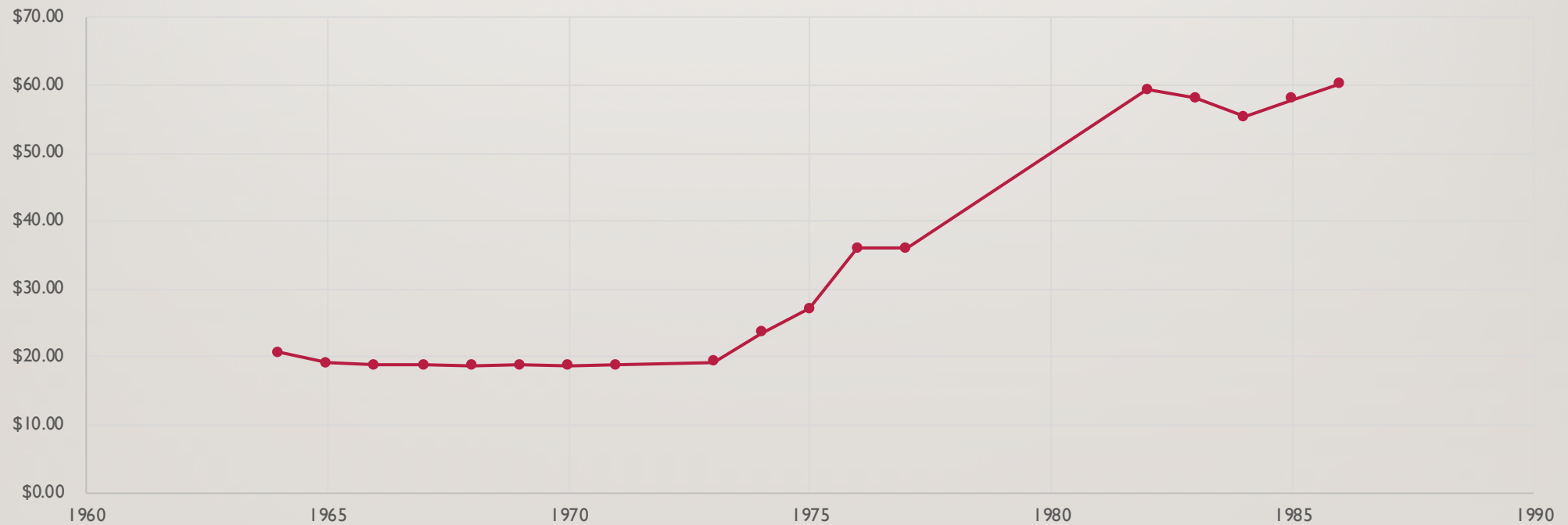
AVERAGE BILL FOR 250 KWH USED



AVERAGE BILL PRICE FOR 1000 KWH USED

Year	Avg. Bill	Year	Avg. Bill
1964	\$20.70	1974	\$23.50
1965	\$19.10	1975	\$27.00
1966	\$18.80	1976	\$35.90
1967	\$18.80	1977	\$35.90
1968	\$18.70	1982	\$59.30
1969	\$18.80	1983	\$58.00
1970	\$18.70	1984	\$55.30
1971	\$18.80	1985	\$57.90
1973	\$19.20	1986	\$60.20

AVERAGE BILL PRICE FOR 1000 KWH USED



NOPSI ELECTRICITY RATES

	25 KWH	40 KWH	100 KWH		
1918-1933 Average	9.8	9.1	7.7		
	0-50 KWH	50-100 KWH	100-250 KWH	>250 KWH	Service Charge
1934	7.5	4	2.5	1.5	25
1935	6.5	4	2.5	1.5	25
1936	6.5	4	2.5	1.5	25
	0-10 KWH (flat charge)	10- 90 KWH	90-170 KWH	170-400 KWH	> 400 KWH
1938	90	4.5	3	2	1.5
	0-10 KWH (flat charge)	10- 90 KWH	90-170 KWH	170-480 KWH	>480 KWH
1939	90	4	3	2	1.5
	0-10 KWH (flat charge)	10-50 KWH	50- 120 KWH	120-500 KWH	>500 KWH
1946	90	3.5	2.75	2	1.5
1958	90	3.5	2.75	2	1.5

- All amounts are in cents
- Service Charge removed in 1938 rate schedule change
- Tax Adjustment Clause added in 1938
- Fuel Adjustment Clause added in 1958

NOPSI ELECTRICITY RATES FOR 1964

1964						
Summer May-Oct	0-10 KWH (flat charge)	10-50 KWH	50-120 KWH	120-500 KWH	>500 KWH	
	90	3.2	2.6	2	1.5	
Winter Nov-April	0-10 KWH (flat charge)	10-50 KWH	50-120 KWH	120-500 KWH	500-800 KWH	>800 KWH
	90	3.2	2.6	2	1.5	1.2
Electric Water Heating (every month)	<200 KWH	200-550 KWH	>550 KWH			
	Follow Above Energy Charges	1.2	Follow Above Energy Charge for >200 KWH			
Comfort Space Heating (Winter)	<200 KWH	>200 KWH				
	Follow Above Energy Charge	1.2				
Both Water Heating and Space Heating	May-Oct.	Nov.-April				
	Water Heating Charges	Comfort Space Heating Charges				

NOPSI ELECTRICITY RATES FOR 1970

1970	0-10 KWH (flat charge)	10-50 KWH	50-120 KWH	120-500 KWH	>500 KWH	
Summer May-Oct	90	3.2	2.6	2	1.5	
Winter Nov-April	0-10 KWH (flat charge)	10-50 KWH	50-120 KWH	120-500 KWH	500-800 KWH	>800 KWH
	90	3.2	2.6	2	1.5	1.2
Water Heating (every month)	<200 KWH	200-550 KWH	>550 KWH			
	Follow Above Energy Charges	1.2	Follow Above Energy Charge for >200 KWH			
Comfort Space Heating (winter)	<200 KWH	>200 KWH				
	Follow Above Energy Charges	1.2				
Both Water Heating and Space Heating	Summer May-Oct.	Winter Nov.-April				
	Follow Water Heating Charges	Follow Comfort Space Heating Charges				

NOPSI ELECTRICITY RATES FOR 1973

Summer (May-Oct)					
0-20 KWH (flat charge)	20-50 KWH	50-120 KWH	120-500 KWH	>500 KWH	
\$1.45	2.8	2.6	2.15	1.7	
Winter (Nov-April)					
0-20 KWH (flat charge)	20-50 KWH	50-120 KWH	120-500 KWH	500-800 KWH	>800 KWH
\$1.45	2.8	2.6	2.15	1.7	1.29
Water Heating (Each Month)					
0-200 KWH	200-550 KWH	>550 KWH			
Follow Energy Charge Above		Follow Energy Charge for >200 1.29 KWH			
Comfort Space Heating (During Winter)	0-200 KWH	>200 KWH			
	Follow Energy Charge Above	1.29			
Both Water Heating and Space Heating	Summer May-Oct	Winter Nov-April			
	Use Water Heating Billing	Use Comfort Space Heating Billing			

NOPSI ELECTRICITY RATES FOR 1975

Basic Rate						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-500 KWH	>500 KWH		
\$1.45	2.7	2.5	2.11	1.67		
Basic Rate w/ Electric Water Heating						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-200 KWH	200-550 KWH	550-850 KWH	>850 KWH
\$1.45	2.7	2.5	2.11	1.25	2.11	1.67
Basic Rate with Electric Comfort Space Heating						
Summer May-Oct.						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-500 KWH	>500 KWH		
\$1.45	2.7	2.5	2.11	1.67		
Winter Nov-April						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-200 KWH	>200 KWH		
\$1.45	2.7	2.5	2.11	1.25		
Basic Rate with Electric Water and Comfort Space Heating						
Summer May-Oct.						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-200 KWH	200-550 KWH	550-850 KWH	>850 KWH
\$1.45	2.7	2.5	2.11	1.25	2.11	1.67
Winter Nov.-April						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-200 KWH	>200 KWH		
\$1.45	2.7	2.5	2.11	1.25		

NOPSI ELECTRICITY RATES FOR 1977

Basic Rate						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-500 KWH	>500 KWH		
\$1.45	2.7	2.5	2.11	1.67		
Basic Rate w/ Electric Water Heating						
0-20 KWH (Flat Charge)	20-50 KWH	50-120 KWH	120-200 KWH	200-550 KWH	550-850 KWH	>850 KWH
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