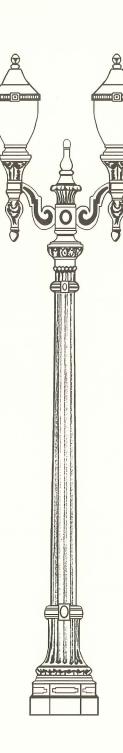
A HISTORY OF STREET LIGHTING IN PORTLAND, OREGON

By Catherine Sohm



ACKNOWLEDGMENTS

In 1984 during the Assessment Fee Campaign, I wrote an 8-page "Brief History of Street Lighting in Portland, Oregon" because I could not find one anywhere. I was encouraged to expand it. When the voters denied me the happy ending I hoped for, I put it aside. During the intervening 12 years I have filled in that outline.

I would like to express appreciation to Al Kreig, director of the Jaycee's campaign for preserving and making available the Jaycee's scrap book, minutes, and final report.

Also to the many fine staff people I have worked with, particularly:

Cynthia Kurtz, who encouraged me and provided material

Elsa Coleman, who has helped throughout with advice and information

Mike Lindberg, who was Commissioner of Public Works and Earl Blumenauer, who was Commissioner of Transportation for their encouragement of my interest in street lighting

Felicia Trader, who has been wonderfully helpful and appreciative of my efforts

Richard Gray, who checked the text for accuracy and offered excellent suggestions

David, my son, and his wife, Connie, who put the report on their computer Samy Fouts, who put it all together so nicely

And all the volunteers who have served on the various committees and task forces to help create this history.

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REFLECTIONS OF PORTLAND'S STREET LIGHTING SYSTEM

By Catherine Sohm

I thought I might recall some of the highlights of those 37 years. Some research I did a few years ago turned up the first attempt at street lighting in Portland when it was still "Stumptown on the Willamette". Safety minded public citizens whitewashed the stumps so they could be seen at night.

This was followed by fish oil lamps on posts, gas lamps and early electric lights of 16 candlepower. In 1936 the last carbon arc lights were removed. Incandescent filament lights registered only 600 candlepower—the equivalent of seven household bulbs.

By the time the first levy was proposed, only 9 miles of streets were lighted up to the national standard. A letter to the editor at the time said "Frankly you have the worst street lighting I have encountered in the Northwest. Outside of Interstate and a few other stretches, it would be far easier for the motorist to see his prospective victim if there were no lights at all than with the inadequate glowworms you hang 20 feet up and two blocks apart on many of your streets."

Downtown and Grand Avenue had their ornamental lights, special lighting districts funded by the businesses located on specific streets, but rest of the city was pretty dark.

With the passage of the first levy came the mercury vapor lights, which were new and wonderful and had been highly touted by the Junior Chamber of Commerce campaign. The advisory committee learned a lot about them and about lighting efficiency in general, from C.H. Lundell, lighting engineer, and were horrified when the first Urban Renewal



Catherine Sohm at the unveiling of the plaque in front of the Portland Building acknowledging 37 years of her interest in street lighting on July 13, 1992.

District insisted upon those extremely inefficient big glass balls which threw most of the light up into the sky.

The first major recommendation the committee made was to lease the system from the power companies, who would make the capital investment. This was done to allow the conversion to proceed much faster than it would had the City bought the equipment. The City later bought it back with federal assistance. We also recommended the streets to receive priority. SE Division was the first followed by NE Fremont, N Lombard, NW Vaughn and SW Macadam.

After a couple of years the committee had heard so much from travelers about the wonderful difference in approaching the city by air at night that we chartered a plane and went up and had a look for ourselves. There was space available and my two sons got to

go along. They were as impressed as we were. The conversion to mercury vapors proceeded over the years. After three ten-year levies, staff and volunteers sought a permanent funding source for street lighting. The legislature had ruled that special levies could only be voted for three years. A consultant was hired and much work done to develop an assessment fee system, based on front footage of property. We went to the legislature for an enabling act, and got it. What we did not get was approval by the voters. It was one of those years with a bed sheet size ballot and we had a complex measure to explain and only limited funds to mount a campaign. So the next year we submitted a 3-year special levy. Bill Naito chaired the campaign, and his enthusiasm even extended to standing on a street corner handing out brochures. The campaign succeeded.

As that three years wound down another attempt was considered to find a permanent funding source. A task force was appointed and eventually recommended a user fee. It was anticipated that it would take a considerable time to develop and another 3-year levy would be needed to work out the details. To me, the highlight of that campaign was that Commissioners Lindberg and Blumenauer invited me to go with them to discuss it with The Oregonian editorial board. The Oregonian had supported the first tenyear levy and none of the subsequent levies because they felt the City should have returned street lighting to the General Fund. They did support that one and it passed.

Then came Measure 5 which doomed our hopes for a user fee. However, it did get street lighting back into the General Fund, where it will be funded by the Utility Franchise Fees.

During these 37 years I've had a chance to work with some wonderful staff people. I can't begin to name them all, but Elsa Coleman and Cynthia Kurtz struggled with the

assessment fee. We went wherever they would have us and discovered neighborhoods we didn't know existed. Grace Crunican worked with the figures on our user fee; Richard Gray is currently in charge. Felicia Trader has been a joy to work with.

From all you've heard you might think street lighting has been my most important interest, but it ranks second. The first, although they may not always have believed it, is raising three fine children, all community minded citizens.



INTRODUCTION

or almost as long as streets have existed to provide easy access to all parts of a community, there has been concern that they be made safer by illumination. Portland's concern in this regard was early demonstrated when it was still referred to as "Stumptown on the Willamette," and responsible citizens whitewashed the stumps on Front Street 1 so people would not run into them in the dark.²

The same source informs us that following the first municipal election in 1851, with 252 votes cast, the first municipal building constructed was a log jail. The first occupant,

O. Travaillott, was arrested for speeding"for riding his horse at a furious rate of speed through the streets of the City of Portland to endanger life and property." Some things haven't changed all that much.

The next efforts at illumination, according to pictorial records of 1852 were fish oil lamps mounted on posts about eight feet above the sidewalk. They gave about as much illumination as a half

dozen candles, but they marked the wooden crosswalks and enabled the belated pedestrian to cross the intersections without wading in the mudholes.³

Someone had the job of carrying a stepladder, a can of oil and a bundle of rags about the streets and seeing that each lamp was refilled, and cleansed of soot before nightfall. Once lighted, the lamps burned until the oil was exhausted and the glass enclosures were blackened again.⁴



Oregon Historical Society, #OrHi 13137

Front Street looking south at Stark Street in 1852. By looking carefully you can see a fish oil lamp in the right foreground about midway between the man in the corner and the bakery sign, perhaps the oldest picture of Portland's street lighting. In the center of the picture outlined against the fir trees is a ship's mast. Vessels are anchored in an eddy of the river.

When the news of Lee's surrender came over the telegraph, the citizens planned a grand illumination. A committee raised funds to purchase enough candles to light Front Street from Jefferson to Ash streets, a distance of 12 blocks. These were placed on 2 x 4 timbers, mounted parallel with and about eight feet above the wooden sidewalks. They were used only for that occasion but made a great display and were the city's first "white way", if only for a few hours.⁵

Subsequent efforts have followed the state of the art of illumination from kerosene lanterns to gas lights to the first electric street lighting in 1885 to today's high pressure sodium vapor luminaires.

With the changes in technology Portland also experienced an amazing range of funding mechanisms for street lighting from generous to parsimonious and back as the city government changed. We were probably the only sizable city ever to fund street lighting by special tax levy for a period of forty years.



Lee's surrender celebration on Front Street.

Oregon Historical Society, #OrHi 13415

¹ Front Avenue used to be Front Street. Many other streets were changed over the years.

² Compiled by the workers of the Writer's Program of the Works Progress Administration, <u>History of Portland, Oregon</u>, 1941, page 19.

³ Gladys Rice and Pamela Alman, <u>Portland's Early Story</u>, published by authors, 1958, page 32.

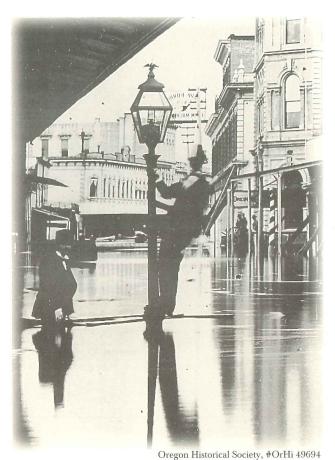
⁴ "Development of Street Lighting in Portland", <u>Pepco Synchronizer</u>, Portland Electric Power Company, Volume IV No. 10, August 1929, pages 1 and 2.

⁵ Ibid. page 4.



THE GASLIGHT ERA

fter the stumps disappeared and the community thrived and grew to a town of 2,874 souls, an enterprising citizen named Henry D. Green "foresaw a glowing future for the new-fangled lights that promised to displace candles and kerosene", and petitioned for and received from the Territorial Legislature a perpetual franchise for a "gas manufactory". Section 3 of this document, written in flowing script, states:



Flood of 1876 on Front Street.

"That the said Green, his heirs, administrators, executors or assigns after the erection of the Gas manufactory as aforesaid, and the laying of the pipes shall provide with Gas all the lamps and burners provided and maintained by the City of Portland, or the corporate Authorities thereof, for lighting the streets, public places, and buildings at a fixed rate and price to be agreed upon by the parties from time to time."

The franchise preceded by about five weeks Oregon's admission to statehood. It was urged along by the City Council who gave it a first, second and third reading on the same day, December 20, 1858, by suspending the rules. The reason for haste was the need for lights on Front Street. The franchise was granted on January 7, 1859. Green and his partner, H. C. Leonard, proceeded to obtain machinery and pipe from New York State and coal from Vancouver Island, and got their gas works under way at the foot of Flanders Street by the end of the year under the name of Portland Gas Light Company. The first gas lights appeared in June of 1860, and by 1872 half of the City's 189 street lights burned gasthe other half kerosene.2

For over twenty years from the introduction of gas lights there was competition between gas and kerosene lamps. The annual report of R. L. Durham, Auditor and Clerk of the City of Portland for the year ending December 31, 1878, shows:

Street Lamp Fund

In treasury Jan. 1, 1878	\$	25.61
Tax of 1878 collected	12,	451.60
Transfers from General Fund	1	,500.00
	\$13	.977.21

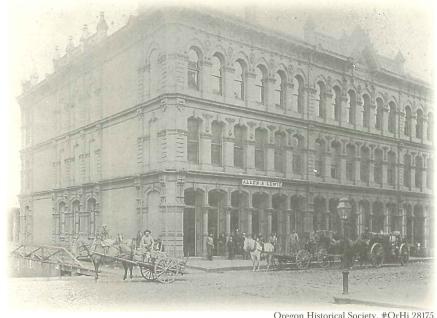
Warrants Drawn and Paid

Lighting Gas lamps	\$ 6,672.37
Lighting Oil lamps	4,409.87
New lamps and repairs	2,018.12
In treasury this date	879.85
•	\$13,977.21

(The lower column actually adds up to \$13,980.21, but after so long a time it isn't important. Bureaucrats were human then, too.)

The year 1887 marked the extinction of the oil lamp for street lighting in Portland when 536 oil lamps were changed to 16 candle power electric lamps. The same year saw the ending of most gas street lighting also as electricity took over. Some downtown ornamental gaslights lasted until 1920. On March 1, 1885 the City entered into its first contract for electric street lights with 22 arc lights placed at street intersections and 44 gas lamps abandoned. Over the next two years more incandescent and arc lights were added.3

In 1924, Peacock Lane, well known now for its Christmas lighting, was known for its gas arc lighting. The developer of 32 English Colonial style houses on the street made arrangements for lighting it with gas arc lights for a ten year period after which time the residents would become owners of the system.4



Front at Davis in 1885. Gas light in the foreground.

Oregon Historical Society, #OrHi 28175

Henry D. Green's franchise for a gas manufactory was introduced on December 21, 1858, Bill No. 11898, and passed January 7, 1959.

² "Gasco's Franchise Beat Oregon's Statehood by About Five Weeks", The Blue Flame, Northwest Natural Gas Company, Volume XVI No. 1, January 1959, page 1.

³ Pepco Synchronizer, page 5.

⁴ The Blue Flame, page 1.



EARLY ELECTRIC

Rectricity was a growing phenomenon, and in Cleveland, Charles F. Brush had devised a system of arc lighting

for series operation which became widely used. The first electric street lighting in Portland was done in 1885.¹ A Past History of Portland General Electric Company dated September 9, 1983, states:

> "In 1888, the Forerunner of P.G.E. Willamette Falls Electric Company. They started construction on a Dynamo House. It was rock filled with wooden bulkheads and was constructed on the east side of the falls because the canal and locks were on the west side. The Dynamo house was equipped with four number eight Brush arc light dynamos. These were purchased from the California Electric Light Company.

Joseph Poffenberger keeping the arc light trimmed in Portland's Woodlawn district in 1927. A PGE employee from 1899 to 1931, he was responsible for all 953 lamps north of Prescott. Arc trimmers also cleaned the globes and inspected and replaced the suspension cables.

"Two water turbines were geared to a line shaft for belt connection to the D.C. Dynamos. A transmission line was

erected to Portland twelve miles away.

"On June 3, 1889, the first generating unit was connected to an arc light circuit in downtown Portland and on June 10, 1889, the second unit was connected. This accomplishment was the first instance of long-distance transmission of electrical energy for commercial purposes in the United States.

"In 1890, the Willamette Falls Electric Company decided they needed higher voltage generation. They ordered six 4000-volt, 80 KW generators, single phase at 125 cycles from Westinghouse, the only company willing to design and build such equipment. Westinghouse, however, insisted that it be absolved of any responsibility for unsatisfactory or unsuccessful operation.

"In the summer of 1890, the six generators were installed. They are believed to have begun transmission of the alternating current output to Portland in September, 1890.

"This was another first: the first instance of long distance transmission of alternating current for commercial purposes in the United States.

"As the art of synchronizing two or more alternators to run in parallel had not yet been perfected, each arc light machine and alternating current generator required its own transmission circuit. Consequently, the transmission line running to Portland along the west side of the Willamette River ultimately carried thirty-six separate wires." In the year of 1897 an economy-minded City Council ordered all street lights out on moonlight nights in order to save electricity.²

From 1885 until 1936 electric arc lights were the source of street lighting in residential areas. Many Portlanders will remember seeing a horsedrawn cart marking its rounds, stopping at every light while the driver let the light down, climbed a step stool, renewed the carbon, cleaned the globe, and pulled it up again to the proper height and anchored the ropes to the pole.

The last of the carbon arc lights were removed in 1946 and replaced by 9,000 incandescent filament lights which registered only 600 candlepower—the equivalent of seven household bulbs.³ These were used until the Jaycees campaign in 1953 led to the introduction of mercury vapor lights.



Myndert Faber in 1910 trimming an arc light at S.E. 14th and Bybee Blvd. His son Herman is watching.



Herman Faber in 1938 peforming the same service at the same location. Standing nearby are his father, Myndert, and his son Bob, who loaned the pictures.

¹ Pepco Synchronizer, page 6.

² Percy Maddux, <u>City on the Willamette</u>, Binford's & Mort, 1952.

³ Article by George Spagna, staff writer, <u>The</u> Oregonian, December 30, 1956.



THE THIRD STREET ARCHES

ong time Portland residents will remember the lighted crossed arches that spanned each intersection on Third Street from Yamhill to Glisan. They were installed by the Northwestern Electric Company in 1914 under a City franchise and funded by contracts entered into by merchants on Third Street. Construction was rushed to finish in time for the Rose Festival.

An article in the Journal of Electricity Power and Gas, published in San Francisco December 5, 1914, Volume XXXII No. 23, recounts their history. Under the headline "Arc Illumination at Portland", C. C. Craig states:

"A few of the merchants on Third Street in Portland, Oregon, realizing that their business was drifting further uptown, recently called a meeting for the purpose of regaining their trade. The Northwestern Electric Company was called upon to submit some unique method of street illumination."

They proposed steel arches resting on concrete encased columns with 96 40-watt lamps on the soffits of the arches, plus clusters at each column capital and a 750-watt nitrogen lamp at the crown of the arches. The article states further: "A special cable for lighting these arches was pulled from the central station and is controlled by a switch in the power house."

"The results obtained from the illumination were highly satisfactory to the merchants - the street being beautifully illuminated. On the day of the formal opening the merchants secured double pages in the daily

papers in which they all placed their advertisements, and in the center a program announcing the hour of the illumination. That evening at various intersections along the street they had provided bands of music and although it was raining, the crowd that gathered long before the time for turning on the lights was so dense that the police had difficulty in handling them."

The arches were a distinctive feature of downtown Portland for many years. The ones north of Burnside were removed for a street widening project. The rest survived until 1937. After the expiration of the contracts in 1934, Northwestern Electric Company, in March of 1936, applied for a renewal of their franchise, claiming that the new system would provide better lighting and improve realty values.

There appears to have been a spirited controversy over the renewal of the franchise. An article in the March 25, 1936 Oregon Journal stated: "What the City Council does with the expiring electric and steam franchise of the Northwestern Electric Company will, in our opinion, probably permanently fix the electric power policy of all ten counties in the metropolitan area for many years to come."

A number of electric companies which had flourished in the early days had disappeared by 1937, some swallowed by the two giants who survived - Portland General Electric and Pacific Power and Light. The franchise was not renewed and the arches were removed as a matter of public safety.



Third Street Arches at night looking North on 3rd and Morrison.

Oregon Historical Society, #OrHi 13630



Third Street Arches in day light on 3rd Avenue.

Oregon Historical Society, #OrHi 94959



THE GREAT WHITE WAY

bout 1923 the legislature provided for the formation of lighting districts, and a new day dawned for street lighting. The Broadway Association was the first created under a charter amendment passed in November 1924 which provided that such work should be done in the same manner as street improvements. Eighty property owners and 235 business concerns would be served by the new system. In May of 1925 bids were called for a system to include six lamp posts to a block along Broadway from Jefferson to Hoyt Streets, except by the Custom House, which would have five.



Oregon Historical Society, #OrHi 64867 Broadway from Custom House, June 1927 rainstorm.

Each post would have two 1500 candle-power units with no-glare globes. Bids submitted were for several different types of posts, from which the Council would make a selection. Two posts favored by the Broadway Association had already been installed at the association's expense. These posts were also favored by the Washington Street organization and other organizing lighting districts downtown. The Council selected a pressed-steel standard and a form of globe slightly different from that suggested by the

Broadway Association, and the contract was awarded to the Portland Electric Power Company in the amount of \$118,876 which included illumination for five years. In August construction work involved in the contract was sublet to the Jagger-Sroufe Company. An extension was granted because of the failure of General Electric to deliver the equipment on time.

Completion of the system touched off a celebration of truly historic proportions. The street was decorated with flags and bunting in preparation and all stores were requested to keep their lights on. Every traffic officer was ordered for duty. A platform was erected in front of the U.S. Bank. Traffic was blocked off at 7:00 o'clock and the street lighted only by flares. E. C. Sammons, chairman of the ceremonies, spoke and at 7:30 pm, A. W. Spencer, president of the Broadway Association, pressed a button turning on



Oregon Historical Society, #OrHi 94961 SW Broadway, celebration of troops coming back from World War I.

318,000 candlepower of light. A local siren and all the boats in the harbor were requested to blow eight long clear blasts-one for each letter of Broadway. Noisemakers were provided. Mayor Baker spoke, there was radio music on every block, the Elks band played and there was street dancing until 1:00 a.m. The Portland News of November 24, 1925 reflected the spirit of the day: "Gay with iridescent brilliance of the Milky Way, the main boulevard of the City of Roses will burst Tuesday evening into a dazzling orgy of electric rays that will rival the most famous glittering thoroughfares of the world." The News also described the street as a "ribbon of white fire." (It seems that journalism has lost some of its verve in the intervening years – a pity).

The claim to rival other cities was not an idle one. City Engineer O. Laurgaard stated, "It will have more lumens per foot than any other street in the United States." (However, all but one third of the new lights were extinguished after midnight.) Portland's Broadway was first in the country, Main Street in Salt Lake City was second, the Path of Gold in San Francisco was third, and Los Angeles was fourth.

Some of the euphoria wore off when assessment notices were sent out and five protests were filed with City Council. Protests were denied, but the Council agreed to credit the association for the 6% engineering charge and for the lights which were replaced by the new system. The assessment was for \$18.53 per front foot to pay the final cost of \$122,259.00.



Oregon Historical Society, #OrHi 37925 Multiple glass ball lights at SW Broadway & Alder, prior to the installation of twin ornamentals in 1925.



Oregon Historical Society, #OrHi50833 $SW\ Broadway\ lit\ up\ at\ night.$



Oregon Historical Society, #OrHi 25887 Looking north on SW Broadway, new twin ornamentals on both sides of the street.

¹ Article "Broadway to Celebrate" in <u>The Oregonian</u>, November 27, 1925.



THE ORNAMENTALS

Proadway was first but it would soon have company. Specifications were already prepared for Grand Avenue and petitions had been filed for Washington Street from Second to Twenty-third. Interest was apparent on Fifth and Sixth Streets in the new ornamental systems and others followed. The first suburban district was Jersey Street in St. Johns between Charleston and Fessenden and on Philadelphia between Jersey and Ivanhoe.

Grand Avenue was second to be completed, but its completion was not quite the triumphant surge experienced on Broadway. Controversy arose when local metal trades wanted to supply a cast-iron standard to replace the pressed-steel standards used on Broadway and manufactured in Canton, Ohio. The issue was clouded when an automobile knocked over one of the Broadway standards, and safety became an issue. Finally, Jagger-Sroufe which had been granted the contract to supply the locally made posts agreed to install the Broadwaystyle ornamental post with a modified base preferred by a majority of the participating property owners, and the project proceeded.

The Grand Avenue project, sponsored by the East Side Business Men's Club, included lighting from Clay to Everett Streets at a cost of \$125,000, with 135 standards, each having two 600-watt lights (with provision made to increase wattage to 1,000 in future). It also included widening of the street to provide a 56 ft. roadway on an 80 ft. street. This made it Portland's widest business street. The dedication was held on Halloween night, and while it didn't quite top Broadway's, it was quite a celebration.

There was a children's parade with 150 prizes for costumes provided by the businesses. A dozen bands played for street dancing. Mayor Baker threw the switch after a brief opening program, and thousands from both east and west sides cheered Grand Avenue's emergence as a business center. Heralding the event, the Sunday Oregon Journal of October 24, 1926, called it a Bridge Binder Street—the first east side street to form a connecting link between the major Willamette River bridges.

Washington Street was next, with a lesser celebration. Fifth and Sixth Streets followed. Sixth Street fell foul of "Spare That Tree" sentiment when elms at the University Club were thought to be threatened. The City Attorney finally ruled that the contractor would not be in violation of his contract if he was allowed to move the standard in question a few feet so that the trees could be spared. In January 1927, Fifth and Sixth Streets and the U.S. Grant Park systems went into effect by automatic control without speeches, bands, or dancing. Ornamental lighting had become routine.

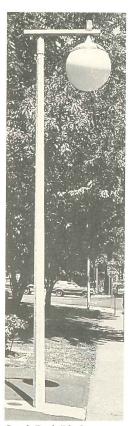
In 1958, at a meeting of the Portland City Council on December 18th, the ornamental lighting districts were terminated. After such termination ornamental streets were to be maintained, operated, altered or replaced with any luminaires and/or standards to fit into the modern lighting program of the City without special assessments on property within the districts and at City expense.¹

¹ The Ordinance was adopted December 18, 1958, after a hearing to which property owners were invited.

SOME OF THE DIFFERENT TYPES OF ORNAMENTALS IN THE PORTLAND AREA



SW 4th & Lincoln



South Park Blocks





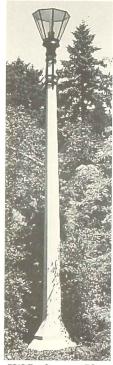
SE Martin Luther King, Jr. Blvd.



Ladd's Addition Park



SW Vista Avenue Bridge



SW Burlingame Place



THE WORST LIGHTED CITY OF OUR SIZE IN THE UNITED STATES

In 1904 a Portland newspaper had proudly published the fact that Portland with 1,000 street lights was one of the finest lighted cities in the U.S. The 1905 Lewis & Clark Exposition was famous for its use of electric lighting – "an outstanding achievement with the dazzling display which put us on the national map". ¹ In 1912 the Greater Portland Plan stated: "Portland is second to no city in the world in the matter of street lighting... There were a total of 2,483 arc lights in place July 1, 1912. The expense of lighting the city streets during 1911 was \$133,831.79, and for the year of 1912 will be approximately \$170,346.12."

Despite this evident pride, time passes and things change. In 1925 the ornamentals were launched with great pride and fanfare. In 1936 the last of the carbon arc lights were

but far from spectacularly. Lights were pretty much taken for granted – until the City got a rude shock.

The National Safety Council surveyed the City in 1953 and found that of Portland's 1,140 miles of paved streets (300 of which were arterials) only nine miles were lighted up to the national standard. Portland had the worst

removed and 9,000 incandescent filament

lights were installed, each light equaling about

the same as seven household bulbs. Then

Portland rested on its laurels for many years. The City grew, and the lighting system grew,

A letter to the editor in the Oregonian about that time from D. J. Hamm of San Francisco complained: "Frankly you have the worst street lighting I have encountered in the

rating of cities of its size in the United States.

Northwest. Outside of Interstate and a few other stretches, it would be easier for the motorist to see his prospective victims if there were no lights at all than with the inadequate glowworms that you hang 20 feet up and two blocks apart on many streets."

Portland needed a champion pretty badly, and found one in the Junior Chamber of Commerce, which adopted street lighting as its major project. R. Handel, director in charge of civic improvement for the Jaycees and with the approval of their board, organized a committee of seven members which began meeting September 23, 1953 to draft a program.



July 26, 1954- Jaycee Street Lighting Committee meets with Mayor Peterson and Commissioner Bowes. L to R around the room: Mayor Peterson • Commissioner William Bowes, in charge of street lighting for the City • Al Krieg, Director of Committee Ivan Congleton • Frank Quinlan • Ron Handel • Dan Grimshaw • Dick Layton, chairman of committee • George Williams • Bud Seely • Keith Petzold, Exec. Secretary of Portland Jaycees • Lloyd Adams • Lew Thompson

They adopted as their stated policy: "To investigate and review the existing street lighting facilities in the City of Portland, Oregon, with emphasis on the possible need for modernization of street lighting facilities on streets of major importance, as well as in the residential area."²

And investigate they did. The City is forever indebted to the members of this committee for their thorough and efficient approach to the problem, for their zeal and endurance, and for their final product. Ron Handel organized the committee and served as overall director. Al Krieg, Junior First Citizen for 1953 and an original committee member, took charge when Handel was forced to resign his position for business reasons. Dick Layton was selected Chairman. The official committee was comprised of fifteen active members divided between representatives of the lighting industry and lay personnel. The roster, as of November 2, 1954, was:

Director: Al Kreig-Exposition-Recreation Commission

Chairman: Dick Layton-Oregon City Enterprise-Courier

Coordinator: Jack Rosenberg–Bank of California

Secretary: Frank Quinlan-Norris, Beggs & Simpson

Committee: Ron Handel-Blyth & Company

Ivan Congleton-First National Bank

Stan Martz-General Electric Corp.

Arnold McLaren-Line Material Company

John V. Mulcahy-Bonneville Power Admin.

Dan Grimshaw-Grimshaw Tires

Leo Chaffin-Portland General Electric

D. E. "Bud" Seely-Westinghouse, Inc.

Lew Thompson–Merrill, Lynch, Pierce, Fenner & Bean

George J. Williams-Pacific Tel. & Tel. Co.

Jack Boyle-Portland General Electric

Lloyd Adams–Social Security Administration U.S. Government

¹ Mr. Fixit, column, <u>The Oregonian</u>, March 12, 1950. Review of early electric lighting in Portland.
² From the minutes of the Jaycees committee. The author is indebted to Al Krieg who has preserved and made available the scrapbook which the Jaycees submitted to win their national award. It contains the minutes of the committee, the final report and press coverage of the campaign.



"OPERATION NIGHT LITE"

ith the encouragement of Commissioner Boody, who was in charge of the Public Works Commission, and cooperation of the Traffic Engineer and the Traffic Safety Commission, this committee devoted sixteen months of research and civic promotion to create the Operation Night Lite program which was eventually submitted to the City Council. Their research included:

- 1. A survey by mail of 42 U.S. cities, many of them in the process of updating lighting after World War II. Police chiefs stood as solid boosters for new and modern street lights. Portland's Chief Purcell enthusiastically endorsed the Jaycees program and his office and official records were open to the committee. Seattle had impressive statistics on the reduction of night accidents on specific streets after the new lights were installed.
- 2. Field trips were made to Seattle, Vancouver B.C., and Al Kreig travelled more than 7,500 miles to Cleveland, New York, Newark, Philadelphia, Atlantic City, Kansas City, St. Louis and Denver. Bud Seely inspected street lighting installations in Jackson, Mississippi, New Orleans, Louisiana, and Vicksburg, Mississippi, travelling over 6,000 miles. All the committee inspected new arterial lighting in Oswego, West Linn, Oregon City and Milwaukie, including incandescent, florescent and mercury vapor lights.

3. Portland survey-Completion of a large city street map and promotional overlays was under the direction of Al Kreig, Bud Seely and Jack Boyle. The City Planning Commission supplied the map. City streets were classified in relation to daily traffic flow and improvements needed to bring them up to standard. They discovered that one reason the street lighting program had been allowed to stagnate over the years was that street lighting was under the Public Utilities Commission. The Jaycees final report strongly recommended combining these functions under the Transportation Bureau's Traffic Management Department, which was approved and put into practice.

All surveys were coordinated into a final planned street lighting program for the entire city, including cost analyses and financing plan. On August 4th the plan was ready to present to the City Council for approval as a November 2, 1954 ballot measure.

Here the dedicated Jaycees ran into a few hard facts of life in dealing with a political organization. Commissioner Boody felt the voters would never approve an expenditure as large as the Jaycees' program required, and wanted to offer a \$1,000,000 program, levying \$250,000 a year for four years. Commissioner Bowes wanted only a straight .4 mill tax. Commissioner Boody was running for re-election and wanted to feature the street light program in his campaign in the May primary election. Commissioner Earl and Mayor Peterson opposed the May ballot measure. This attempt was successfully

discouraged by outstanding public support of the Jaycees committee. Support from major civic organizations, along with the threat to drop the plan, convinced city officials it would be wise to wait for the November election.

The Council was then sufficiently impressed with the obvious support of the Jaycees' program that they decided to improve on it. Instead of the Jaycees' gradually increasing levy of 1/4 mill the first year, 1/2 mill for the second year, 3/4 mill the third year, and one mill or \$762,000 per year, whichever is the lesser for each of the succeeding seven years, they proposed a two mill levy for ten years. (A mill is 1/1000 of a U.S. dollar or 1/10 of a cent).

The Jaycees had two major problems with this proposal. They had carefully projected costs, and while the levy proposed by the City might eventually be needed for the completion of the program, they had no projections to justify it. The second problem was that the Jaycees program was designed to supplement - not supplant - the City's 1954 budget of \$381,500 for street lighting. The city's proposal removed street lighting entirely from the General Fund, and offered no information on the disposition of the amount previously budgeted.

This proposal by the City Council was also vigorously opposed by the Oregonian, and was the basis for the paper's refusal to support subsequent levies until street lighting was returned to the General Fund. They advocated an attempt to increase the City's tax base if necessary to complete the lighting program. They supported the first levy with the understanding that lighting would be returned to the General Fund, but withheld support in 1964, 1974 and 1984 when this was not done.

The question was eventually settled by compromise. The City Council reduced the levy to 1 1/2 mills and agreed that the lighting program would adhere to the standards required in the Jaycees program. (Lighting remained outside the General Fund Budget until 1990 when Measure 5 put it back abruptly by severely limiting special levies.)



THE FIRST CAMPAIGN – 1953

he Jaycees then undertook to promote the ballot measure. In midsummer of 1954 they mailed over 200 letters to service clubs and civic organizations inviting their members to hear the story of Operation Night Lite. Frank Quinlan was named chairman of a special Speakers Bureau comprised of committee members and ten volunteers from the Jaycees Gavel Club. Speakers were furnished facts and figures, and at more than 50 large meetings two speakers were used and the giant map was set up for visual display. Speakers appeared at over 100 meetings attended by at least 2,627 people.

Another approach was to set up a sample streetlighting installation. Portland General Electric agreed to install sample lights at no additional cost to the City unless installation was eventually incorporated into a city-wide plan. The location chosen was 13 blocks on Hawthorne Boulevard. A grand opening on the night the lights would be turned on was organized under the direction of John Mulcahy with the cooperation of the Electric Club of Oregon and Hawthorne Boosters. Ceremonies included a major local parade.

The parade included the Police Band, antique model cars, and there were appearances of civic leaders and public officials. Miss Flame, honored in Portland as Queen of Fire Prevention Week, pulled a large switch located on the bandstand that turned on the lights for the first time. Attendance at the affair was placed at 2,000. Six blocks were lighted with florescent fixtures and the remaining seven with mercury vapor lamps. This was a concession to C. H. Lundell, the lighting engineer, who advocated the florescent lights. Commissioner Boody

advised that the City Council would make the decision. They adopted the Jaycees' preference—the mercury vapors.

There appears little doubt that the combination of comprehensive facts and figures, along with a well-planned program, sold Operation Night Lite to the people of Portland. The measure passed by a vote of 92,702 to 53,871.

Mayor Fred Peterson expressed pleasure, and Ike Congleton, President of the Jaycees, pledged to continue their lighting committee and to work with the Council on the details of the program.

That was the year Portland voters embraced a package of improvements to turn Portland into a "Big League City" instead of a "Sad Sack Town". This was the slogan created by Tom Humphrey, editor of the editorial page of the Oregon Journal in a series of articles favoring the proposed ballot measures. In May \$8,000,000 was approved for the Expo Center, \$4,000,000 for the zoo, \$12,0000,000 for the Morrison Bridge, \$6,500,000 for dock improvements and \$11,500,000 for a tax base adjustment. In November, although not quite so receptive, the voters approved the Streetlight levy for \$10,000,000 over ten years, and the City and State school measures. However, they turned thumbs down on the 28th Avenue Viaduct, domed stadium at Delta Park, and an Elephant House at the Zoo. That surge of civic pride may have planted the seeds of our taxpayer revolt today, but it was wonderfully revitalizing at the time. Business Week labeled Portland the economic hot spot in the nation.

The Junior Chamber of Commerce was rewarded for their dedication and effort by winning first place in the National Jaycees competition for civic improvement projects. Their report contains sage advice for any group aspiring to a project of such size and scope. The people of Portland were rewarded by a 50% reduction in night-time traffic fatalities - later verified when statistics became available.



THE FIRST TEN YEARS - 1954-1964

ayor Peterson appointed a Citizen's Advisory Committee on street lighting, at the suggestion of the Jaycees to help formulate long-range street lighting policy and to insure public input in the spending of the levy funds. Members were chosen from the utilities, businesses, neighborhood booster associations, etc. and it was an extremely diverse group.

Members of the original committee and their affiliations were:

Kelly Westrom-Van Duyn Chocolates (General Public)

R. G. Layton–Junior Chamber of Commerce Joe Liebrich–Pacific Power and Light (East Side Commercial Club)

Robert K. Shaw-Shaw Furniture (Sellwood Boosters) Hy C. Jensen-King Building Supply (Hawthorne Boosters)

Harry Hayden-Foster Boosters

William P. Choate–Retired (Hollywood Boosters)
Julius Radke–Radke Auto Parts (St. John's

Business Mens' Club)

Mrs. Wilbur Sohm-Children's Protective Association John H. Deines-Sanitary Drivers Union

(Teamsters Union)

John V. Mulcahy–Bonneville Power Administration (Electric Club)

George B. Bocarde–Pacific Power & Light (General Public)

T. W. Fryou–Portland General Electric (General Public)

Marvin Prestwood–Portland General Electric

(General Public)

Members who served all or part of the first year only were:

William F. Saxon–(General Public)
Vance Sayles–(Portland Realty Board)
Douglas Savoy–(Lombard Boosters)
Dr. Robert Kullberg–(Hillsdale Boosters)
Sam J. Sposito–(Italian Businessmen)
Howard Hubbard–(General Public)

George M. Covell–S.E. Portland Chamber of Commerce John Corenbaum–(Traffic Safety Commission) D.B. Chown–(Retail Trade Bureau) Frank Gomersall–(President's Council) Mrs. K. M. Christianson–(Federations of Women's Clubs) J. D. W. Crockwell–(General Public)

Additions after the second campaign were:

Sid Leo –(Staff) Jim W. Bryson Dave Calvert–(Jaycees)

James Lynch–(General Public)

H. S. Dobaj Mrs. Fred Gast

L. C. Justice Harold Mahnke

Sam J. Maerz-(Staff)

Robert Stevens-(Jaycees)

The committee worked in cooperation with Commissioner Boody and City Utilities Engineer C. H. Lundell, who bore direct responsibility for planning and installing the system which was the first major conversion in the street light program since 1936.

Lundell was scheduled for retirement in 1957 on attaining age 70, but was continued on his job by vote of the City Council on an extended need basis. During his time on the staff he engineered most of the City's electrical jobs. He had been a member or an officer of every major engineering society in America, including charter memberships, and was one of the four original founders of Professional Engineers of Oregon.

The committee met monthly, elected officers, adopted rules and appointed committees. The members learned a lot about mercury

vapor lights, which were new and wonderful at that time, and about lighting efficiency in general. They received progress reports and recommended prioritizing of streets to be lit. (And in 1965 they were horrified when the first Urban Renewal District insisted upon those extremely inefficient big glass balls which threw most of the light up into the sky. Urban renewal was an independent organization and wasn't required to take the Advisory Committee's advice).

The first decision the committee was asked to advise on was a major one. Price quotations were secured on the necessary equipment. The major power companies, P.G.E. and P.P. & L., offered to make the initial investment and lease the system to the City under contract. This would enable the conversion to go much faster than it would have, had the City bought the equipment in \$1,000,000 annual increments over the ten year period. The committee recommended the leasing plan and the City Council approved it.

The first ten year levy was to light 300 miles of arterial streets and 2,000 intersections in the residential area. Plans were drawn up and as soon as funding became available the lights went up. Division was the first arterial to be lighted, followed by N.E. Fremont, N. Lombard, N.W. Vaughn, and S.W. Macadam. Favorable media coverage and editorial comment followed the progress of the program over the years. The 2,000th and 5,000th lights were pictured as they went up and the number of completed miles reported.

After a few years the advisory committee had heard so much from travelers about the enchanted city they were seeing from the air that the members chartered a plane and went up to have a look for themselves. They were most gratifyingly impressed with the spectacle. (Recently a traveler on a plane

arriving at the Portland airport in the evening a few minutes ahead of schedule reported that the pilot announced he was circling the city because it was the most beautiful from the air of all the cities the airline served).

Another problem referred to the Committee was the interference of existing trees in the parking strips with the new lights. Trees can be a very emotional issue as the committee soon discovered. These trees also introduced some tricky legal problems. The parking strips actually belong to the City, but for years the adjacent property owners had been encouraged to maintain them along with their front yards. It was not surprising that they regarded the plantings as theirs, and resisted attempts to trim or remove the offending trees. The City was most reluctant to assert its property rights, lest they be saddled with the upkeep of miles of parking strips. The solution was an amendment to the existing city ordinance on tree trimming and a public information campaign urging citizens to cooperate in allowing the new lights to attain their maximum efficiency by permitting trimming of tree branches where needed. A resolution was adopted by the Jaycees and similar resolutions were solicited and received from a number of civic, service, fraternal and neighborhood organizations. It must have worked because there is no record of any legal actions taken. The Planning Commission was approached to establish a street tree program that would be compatible with lighting.

The Planning Commission and its Art Committee raised another major concern. They proposed to use what appeared to them to be ample funds for something special in lighting parks, scenic boulevards and some of the more attractive residential districts. After all, planning for this \$10,000,000 project had been done entirely by the Jaycees' committee, and the Planning Commission felt it had an obligation to participate. Letters

were exchanged and subcommittees conferred, with the Street light Committee holding to the position that the street lighting expenditures were carefully projected and did not allow for special decorative treatment outside of the traditional ornamentals. Subcommittees were unable to resolve the issue, and a public hearing was scheduled. At the hearing it was pointed out that park lighting was not included in the measure submitted to the voters, and that the Park Bureau budget still retained an item for lighting. The upshot was that only those park streets which carried traffic were included in the program. (In the 1989 levy, parks were specifically included in the levy and improvements were made.) A liaison committee was appointed with representatives from the Planning Commission and the Street Light Committee to ensure communication on future programs of mutual interest.

The orderly replacement program hit a snag when the Columbus Day storm happened in October, 1962. Eighty-five percent of the lights were dark for a while. Fortunately, most of the lights in the downtown core area were serviced by underground cables and were out for only about twenty minutes. Throughout the city, luminaires were damaged and had to be replaced or repaired. Arterial streets were the first to be restored, but it took several weeks before all 20,000 lights were burning again. The utility companies were taxed far beyond their capacity and brought in workers from other cities to get the job done.



THE SECOND CAMPAIGN-1964

s the first ten years wound down it became obvious that \$1,000,000 a year was not going to accomplish as much as projected. In January 1959 street lighting was assigned to Ormond R. Bean, Commissioner of Finance. On July 23 he submitted to the Council a detailed progress report on the exact status of the program. On August 1, 1960 he circulated a report by Sid Leo, Electric Services Supervisor, which stated:

"The cost of maintaining and paying for power on street lighting has reached the point where it is advisable to discontinue new installations until such time as additional funds become available."

He had prepared a list of street lighting needs involving new lighting and modernization of existing lighting. At the conclusion of the ten year levy, the operational budget of the Street Light Bureau would be around \$1,450,000 annually. The Advisory Committee which had been inactive as the program progressed in an orderly fashion, was reactivated at a meeting called July 23, 1963 by Commissioner Bean. He stated that a decision must be made as to whether to ask for another ten-year special levy to continue the program or to try for a new tax base. The committee agreed that a special levy would stand the best chance for voter approval, and that the May primary election offered a better chance of success than November.

Commissioner Bean also pointed out that expenses were \$1,250,000 annually for the existing program, and a new levy should produce at least \$1,500,000 to cover additional lighting not contemplated in the original levy. The staff and the committee developed a new appreciation for the effort the Jaycees' planning committee had put into the original ten year program which the city had gratefully accepted. Now with ten years experience to draw on, it was up to them to supply the nitty-gritty planning for another ten years.



Leonard Bacon photo, The Oregonian Commissioner Ormond R. Bean (left) and Hilbert Johnson, Portland General Electric Co. Vice President (right) converting Portland street light to mercury vapor from incandescent.

A progress report was presented by Sid Leo, City Electric Services Supervisor, who had succeeded Carl Lundell upon his retirement. He reported:

- 1. ARTERIALS Only 255 miles of the 300 miles of arterials planned had been lighted, and approximately 3,800 incandescent lights were removed. One of the paramount reasons for the shortage of funds to complete the original plan was the street light rate increase granted to the utilities in 1960 by the Oregon Public Utilities Commissioner. This increase resulted in approximately \$60,000 additional annual cost for street lighting.
- 2. **RESIDENTIAL** Approximately 2,300 street lights were installed at intersections and at mid-blocks by petition requests from residents. In 1960 the previously announced program to install 6,000-lumen incandescent lights was discontinued, and in its place 175-watt mercury vapor lights were installed.
- 3. **ORNAMENTALS** In the spring of 1962 the downtown ornamental lights were converted to colorcorrected mercury vapor lights.1 The total lumen output increased from 13,532,000 to 42,680,000 lumens. Prior to the conversion, two-thirds of the lights were extinguished at 11:00 P.M. daily. The time was set back to 1:00 A.M., resulting in two additional burning hours daily at an additional cost of \$34,000 annually. In the spring of 1961, with the cooperation of the Portland Art Commission, new colors were selected for painting the ornamental poles.

- 4. FREEWAY LIGHTS Freeways to be constructed within the city limits would total approximately 15 miles. Through a cooperative arrangement, the State Highway Department would install and maintain all lighting on the freeways, the City to pay electric power charges. The State would also illuminate the Banfield Freeway which has been in use for many years. Estimated cost for all freeway lighting was approximately \$25,000.
- 5. **SPECIAL LIGHTS** In the lighting of two areas, aluminum poles were used, with the additional cost being paid by the property owners. Approximately 150 lights were installed in the Lloyd Center on aluminum poles served by underground circuits, and the Woodrow Wilson Park area had 36 lights installed on aluminum poles.

In addition, Leo mentioned 2,500 acres of annexations which must be lighted, and a plan to change to underground installations in the entire downtown area east of the Stadium Freeway. He discussed a plan to convert all existing incandescent lights to mercury, and displayed a leaflet showing a type of aluminum pole to be used in the downtown area.

Mr. Leo also displayed a chart showing reductions in night traffic fatalities of 50% since the lighting program began and mentioned numerous awards from the National Safety Council. This provided the proof, often requested, of the argument that improved lighting would reduce traffic deaths, and the committee was delighted to receive it.

It was also reported that the Junior Chamber of Commerce would be receptive to assuming responsibility for promotion of another ten year special tax levy. A motion was promptly passed that a subcommittee be appointed to confer with the Jaycees and reach a tentative agreement if possible. The subcommittee consisted of John Mulcahy, Chair, Dick Layton and Marvin Prestwood.

The committee agreed to resume regular monthly meetings, and John Mulcahy asked staff for a projection of necessary funding to be ready for the next meeting of the committee, including use of metal poles for all replacements. A motion was passed that the committee go on record to recommend standardization of poles in the downtown underground area.

At the next meeting on October 1, 1963, the subcommittee reported that the Jaycee's would probably be willing to take up the campaign, but needed more information to submit to their board. Sid Leo displayed maps showing the present ornamental system which had been converted to the new mercury vapor lighting in the last eight years and is now to be converted to underground service, and the new lighting made necessary by the Stadium Freeway. He noted that Harbor Drive needed to be converted to mercury and the east end of the Steel and Broadway bridges had inadequate lighting.

Leo was asked to prepare a breakdown of cost estimates and circulate it before the next meeting on October 16th. Commissioner Bean asked that the study address:

- 1. The cost to continue what we have (estimated at \$1,150,000).
- 2. What we are required to do through contracts with the Highway Commission.
- 3. What is needed to complete the lighting system.

At the October 16th meeting the requested report was discussed. Sid Leo indicated that:

- 1. A ten-year special levy with a \$100,000 increase each year would produce \$18,500,000.
- 2. A tax base increase of \$1,400,0000 with a 6% increase yearly would produce \$18,452,000.
- 3. A ten-year special levy of \$1,850,000 a year would produce \$18,500,000.

A breakdown of current expenditures for both incandescent and mercury lights which the city owned totaled \$20,667.36; utility owned totaled \$908,888.40; ornamental lights totaled \$143,823.40; and miscellaneous including freeways, park walkways, stairways, pedestrian subways, underpasses, viaducts and pole rental totaled \$46,605.40, for a grand total of \$1,119,984.56. Proposed additions to the program would add \$370,006.51 of annual cost, and require capital expenditure of \$1,277,100.

The proposed project included conversion of City owned lights to mercury vapor, 60 miles of freeway lighting, midblock lights in residential areas, 60 miles of arterials, 264 ornamentals in the downtown area, lighting of the Urban Renewal area, N.W. St. Helens Road, and new residential lights on order.

After discussion it was agreed that an increase in the tax base was not popular and should not be considered. It was also noted that in Plan III there was a cushion of \$200,000. Mr. Leo pointed out that over a ten year program unforeseen things would happen and some provision would be made for contingencies.

A motion was adopted that the proposal designated Plan III, fixing a maximum of \$1,850,000 annually for the continuation of the street lighting program, be recommended to the City Council. It was also decided that a letter be sent to Commissioner Bean advising him of this action so that the City

Attorney could draw up the title and resolution for action by the Mayor and City Council.

At the December 10, 1963 meeting Sid Leo reported that the Council had not yet decided on any amount for the levy. Two representatives from the committee and two from the Jaycees were asked to meet with the Council December 17th, when a decision would be made. Discussion stressed the need to provide a cushion against inflation and contingencies, since the cost of luminaires had just gone up 6 ½%. A motion was passed to stress to the Council the need for the ballot measure to provide for a levy of \$1,850,000 a year.

It was announced that the board of directors of the Jaycees had approved the project and were awaiting the final figure to start their campaign in the latter part of January. This was to be their No. 1 project for the year. Bob Stevens was named chairman and he was assisted by Dave Calvert.

In answer to a request of the Jaycees representative, Sid Leo outlined the reasons why the first levy had proved to be inadequate, including: assumption of the cost formerly carried by the General Fund, a rate increase for electricity, assumption of the cost of four ornamental systems, building of the Lloyd Center, urban renewal projects and annexations.

The council approved four measures for the May 1964 ballot:

- 1. The street light levy for \$1,850,000 a year for 10 years.
- 2. A zoo levy for \$300,000 for an addition to the pachyderm house for one year.
- 3. Bond issue for remodeling of the Civic Auditorium for \$3,925,0000 in twelve year serial bonds.

4. The 28th Avenue Overpass for \$750,000 twelve year serial bonds.

The Jaycees did another stellar job on the campaign, and the levy passed, but by a narrower margin than the first - 78,389 to 61,692, and the elephant house at the zoo, the Auditorium remodeling and the 28th Avenue bridge were defeated. (They all passed in subsequent years).

One of the obstacles the street light measure encountered was lack of support by the Oregonian which held firmly to its position that the City should finance lighting through the General Fund and seek a tax base adjustment if necessary.

The measure also encountered skepticism by the Portland Reporter. This paper asked some pointed questions regarding material and figures, and considered the City's answers to be inadequate. "The City didn't know, didn't receive and could not assess reliability of facts, figures and reports on its street lighting contract - which was to be the basis for a new ten year program."2 The Reporter seriously considered reversing endorsement of the measure, but conferences with Mayor Terry Schrunk convinced the paper of his surprise and sincere concern over the City's lack of basic knowledge on the street lighting contract. He assured the Reporter that no new contract would be approved until the City had the answers.

The position of Utility Rate Analyst was created and in July of 1964 Sam Maerz was appointed to fill it. He had been a utility engineer and rate analyst, specializing in electric power, telephone and water systems for the engineering division of the Oregon Public Utilities Commission, and had served with distinction under four commissioners.

The Reporter did not contend that the power companies were "robbing" the City under the

expiring contract, but felt the City should have known what kind of bargain the taxpayers were getting.

By November of 1964 Sam Maerz submitted "A Report on Street Lighting in Portland", giving the results of his three month study of the program, which he summarized as follows:

FINDINGS

- 1. The utilities now furnishing the majority of the street lights used in the City are receiving a rate of return from street lighting service which is below that allowed by the State Regulatory Agency on their Oregon operations.
- 2. Mercury vapor lamps are most economical.
- 3. There are now approximately 23,044 street lights in service.
- 4. The planned program for the next ten years calls for installation of approximately 10,000 additional street lights.

CONCLUSIONS

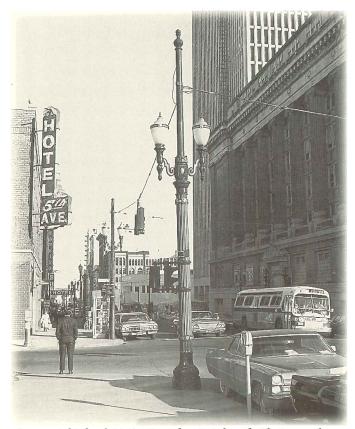
- 1. Utility ownership and maintenance of street lights on multi-use poles, and overhead service, is the most economical on a long-term basis.
- 2. Comparison of long term costs for all other installations does not indicate great disparity between City ownership and utility ownership.

RECOMMENDATIONS

1. Continue practice of following recommendations and standards prescribed by the Illuminating Engineering Society.

- 2. Use mercury vapor luminaires exclusively, until such time as an improved lighting device is developed.
- 3. Discontinue wherever possible use of street light only poles.
- 4. If it is determined that the City is to install, own, and maintain additional street lights, consideration of a policy whereby bids for all services from qualified contractors is recommended.

The report addressed cost aspects, merits of power company ownership and maintenance of street lights vs. more active participation on the part of the City. It examined costs for the first ten years and projections for the next ten years, and reassured citizens that these were reasonable and in order.



Ornamental pole adaptation to conform to policy of replacing wooden poles with metal and encouraging multiple use poles.

On December 15, 1964 a resolution was adopted by the committee approving Maerz' report and recommendations, and "commending him for his excellent report and the committee will consider it a valuable guide to the Street Light Committee in future considerations." The renewal contracts with the utility companies which had been deferred for 120 days to allow time for the study were duly signed, and the second ten year program was under way.

(That a lesson had been learned was evidenced by the City's interventions in rate hearings—at least four in the 1970's, one in 1983 and then UE-79 in 1990. The issues in the 70's and 80's included: asset valuation, operating hours, credit for burned out lights, maintenance schedules, and others. The relationship between P.G.E. and the City was strained during many of those cases. The UE-79f case in 1990 focused on two main issues, group relamping and maintenance rates and practices).

¹ The original mercury vapor lights gave a bluish light that was not flattering to the human complexion and detracted from the effect of downtown store window displays. The color corrected version was available at a somewhat higher price, and the merchants favored it.

² Reporter, editorial, July 3, 1964.



THE SECOND TEN YEARS – 1964-1974

In addition to vindicating the street light program, Sam Maerz raised the important issue of a permanent source of funding for street lighting. On February 16, 1965 he was added to the committee to work on a tax base increase to present to the voters prior to the expiration of the new tenyear levy. On March 9, 1965 he urged the committee to devise a funding plan and get it in operation, because once the conversion was completed, the voters would probably lose interest in special levies to maintain the system.

On April 13 Maerz urged the committee to make a permanent funding plan its first priority. On May 18 he reported that his attempt to secure figures on possible funding sources had to be deferred because of work on the budget. On June 15 it was again deferred, with a proposal to invite the budget director to the July meeting. Mr. Setterling attended the August meeting and discussed various financing possibilities. Apparently, support was lacking for a further effort to find a permanent funding source, and it did not seriously recur until budget preparations in 1984.

A special lighting need occurred in 1965 when, the voters having finally approved the Auditorium remodeling, the Oriental Theater on Southeast Grand Avenue was designated, because of its size and outstanding acoustics, as the temporary home of the Portland Symphony Orchestra. Parking was a serious problem. A cooperative effort between the City of Portland, Multnomah County and the Portland Police Bureau resulted in opening up 200 free parking spaces—lighted, police patrolled and under cover—for approximately 600 patrons attending concerts of the 1965-66 season which opened on October 11.

Mrs. Norman Nemer, Chair of the Women's Association of the symphony, worked with Commissioners Mark Grayson and Ormond Bean to obtain permission from the county, which owns the bridges, to light the underside of the Morrison Bridge ramps and arrange for police patrols during the evening concerts.

Sid Leo installed fifteen mercury vapor floodlights under each of these two ramps. Auxiliary police patrols ranging from four to eight men, as needed, armed and in uniform, patrolled the area during the evening concerts. The four square blocks of parking under the bridge ramps added to 100 on-street spaces and 400 in off-street lots could provide for 2,100 people, and the Oriental's seating capacity was 2,035. This solved the problem, and the Civic Auditorium was completed in March, 1967.

For the duration of the street light program begun in 1954, the majority of the lights had been owned by the two major power companies. Portland General Electric had the greater share, but Pacific Power & Light had a sizable holding. In 1969 P.G.E. reduced its rates for street lighting and PP&L, with the City's blessing, negotiated with P.G.E. for the sale of its company-owned street lights. P.G.E., in turn, agreed to sell to PP&L its electric distribution facilities in a particular area of the city adjacent to an area already served by PP&L. City Ordinance No. 128711 approved the transfers, as did the Public Utilities Commission and the Federal Power Commission upon petitions being filed. P.G.E. also acquired those street lights of PP&L serving street lighting districts that lay outside the City of Portland. From 1969 until the City bought it in 1980, P.G.E. substantially owned it.



THE THIRD CAMPAIGN - 1974

he third levy campaign differed from the first two in several respects. The system was fundamentally completed except for annexations and special additions, and was generally accepted by the voters. The levy was necessary for its continued operation. The Jaycees, while still supportive, were not asked to spearhead another campaign, and the Advisory Committee had disbanded. A new concept of business participation in worthy civic causes had been introduced - the Loaned Executive. Business had realized that it was preferable to designate one employee to work full time in support of a worthy cause (like the United Way campaign) than to have several employees distracted by simultaneously volunteering their time.

The third campaign had another problem. Due to a reorganization in the Public Works Department, work was not started as early as it should have. In September Mike Lindberg, Acting Public Works Administrator, outlined a campaign in detail. The first assigned Loaned Executive, Don Normand, died, and the U.S. Bank called Don Magnuson back from vacation to fill the assignment. A citizens committee was recruited, and Public Works staff provided advice and assistance where possible, keeping in mind that City employees cannot spend City time working for a ballot measure. The entire campaign was from September 23 to November 7, election day.

The citizens committee included Bill Roth, Roger Staver, Dan Crotty and Keith Petzold, of Coit Petzold Advertising Agency, and others they recruited. They were directed to develop a strategy and campaign plan and be responsible for its implementation, to

supervise the Loaned Executive in the implementation of the plan, to be available to make a limited number of personal appearances to endorse the levy, and to be responsible for fund raising, developing a budget and implementing a media campaign. A series of neighborhood coffees was held and the usual civic and service club rounds made. Mothers for Street Lights was organized by Mrs. Magnuson. P.G.E. and the U.S. Bank led off with financial support and other banks and corporations followed, raising a total of \$19,425. The campaign succeeded, passing by a vote of 93,523 Yes to 40,382 No.





THE THIRD TEN YEARS-1974-1984

he voters had demonstrated their satisfaction with the lighting program, but the City faced a daunting development when the cost of electricity rose by 131 percent when OPEC raised the price of oil. By dint of economies due to conversions, owning of system, etc. the cost of operating the street lights rose by only 82 percent, which was still a staggering increase. In 1977 the City imposed a moratorium on new light installations because resources were not keeping up with requirements.

A major problem was dealing with annexations and the need to acquire and update the diverse lighting systems in the annexed areas to 1980 City standards. The 1984 budget contained \$1,176,000 for covering annexation costs. By 1979 some lights were being turned off. While there were no new installations planned, property owners or civic or neighborhood groups could pay the cost of installation and secure a needed light which the City would operate, but the usual petition system and automatic installation was discontinued.

The mercury vapor luminaires installed in 1955 were beginning to need replacing, and the latest development was the high pressure sodium vapor light which operated on two-thirds of the power required by the mercuries. In 1980 about 16,000 mercury vapor lights had been converted at a saving of about \$745,000. Some people disliked the yellow light the sodium luminaire provided, but the operating cost saving was impossible to ignore. (Some people had objected to the blue light the mercuries provided when they were introduced also).

In 1978 the City undertook a study to identify alternatives to its highly unsatisfactory position. Portland General Electric Company had held a permit to provide street lighting since the 1880's, and had installed, maintained and provided energy to approximately 37,000 street lights within the City. Their agreement was due to expire in 1978. Operating costs had increased nearly 60 percent between 1972 and 1978. The City had a fixed annual operating revenue of \$3,580,000 from the levy. The study recommended that the City negotiate purchase of the lights from P.G.E. and the City accepted the recommendation for three major reasons:

- 1. To reduce cost by eliminating monthly rental charges for equipment.
- 2. To lower cost by cutting energy consumption by converting from mercury vapor to high pressure sodium vapor lights.
- 3. To obtain Federal Interstate Withdrawal funds (Mt. Hood Freeway) of \$1,500,000 to assist in conversions. (City ownership was a prerequisite for eligibility for these funds).

The City estimated savings from eliminating rental charges of \$648,000 annually, and from reduced energy charges at \$590,000 annually. They also anticipated energy conservation credits from P.G.E. of \$670,000 to offset some of the conversion charges.

After extensive negotiating the City contracted to purchase the street lighting system from P.G.E. on July 31, 1980 for \$3,000,000. The Oregon Public Utilities

Commissioner approved the sale on September 15, 1980, and the City paid the purchase price the following day, thus avoiding any further rental charges.

Funding of the purchase was accomplished from the Street light Fund as follows:

\$750,000 – appropriated in the 1979-80 Street Light Fund budget to purchase lights along commercial arterials in anticipation of their conversion

\$1,450,000 – appropriated in the 1980-81 Street Light Fund budget to purchase the remaining lights

\$600,000 – authorized transfer from the Street Light Fund's General Operating Contingency

\$200,000 – authorized transfer of funds from the Street Lighting Division operating budget.

The City anticipated receiving credits to offset most of the funds transferred from the Street Lighting Fund and the Street Lighting Division in energy conservation credits from P.G.E. upon converting all the lamps.

In June 1983 the city requested a review of the purchase to ascertain whether the estimated benefits had been realized. Management Technology Associates undertook the study, reporting in October of 1983.

An interesting fact brought out in the study is that the City has no duty to provide street lights. There is no law to that effect. It is permitted to provide lighting. According to the consultants, liability arises only if (1) that street lighting did not adequately illuminate a hazard existing in the roadway, or (2) that a street light in some manner obscures or blinds the view of a driver, or (3) that a street light

falls and damages property. The City has broad discretion regarding the number, type and location of street lights. If budget conditions dictate, the City may reduce the level of any or all street lighting.

The study confirmed that as a result of the purchase the City had realized significantly more than the estimated annual savings expected from eliminating the monthly ownership charge. In 1980 that savings had been estimated at \$647,646. By the end of 1983 the annual savings, based on monthly P.G.E. ownership charges, would be \$1,058,808.

The City also realized a significant portion of the estimated savings from reduced energy charges. From the half completed conversion, the City had realized annual savings of \$623,585.

The City had also realized a portion of the energy conservation credits which had been estimated at \$670,000. Through April, 1983, they had received \$348,800 from P.G.E.

The City incurred total street light conversion costs of approximately \$2,050,000. A portion of these funds came from Freeway Withdrawal Funds and the remainder from the Street Light Fund. The City was reimbursed \$1,892,009 by the Bonneville Power Administration for the energy conservation accomplished by the conversions. From this amount \$418,240 was retained by P.G.E. as repayment for energy credits previously received, and for field and mapping work performed during the conversion projects.

The report concluded that as a result of the purchase of the system, the City had been able to operate within the revenues provided by the annual levy of \$3,580,000 and had been able to maintain total utility expense at

a reasonable level despite the fact that P.G.E. energy charges had increased 67 percent since January, 1980.

Much attention was paid to energy conservation for several years. Perhaps the end of the energy crunch was marked when Multnomah County embraced a program for decorative lighting of the Willamette River bridges, with no mention made of a need to conserve energy. According to an article by Commissioner Collier in the June 1995 Sellwood Bee:

"The Willamette Light Brigade was formed in 1987 to find the resources to design, install, power and maintain lighting for nine Willamette River bridges, including the St. Johns Bridge. The Morrison Bridge was first, accomplished by soliciting \$78,000 in donations of labor and money, primarily from the International Brotherhood of Electrical Workers and the National Electrical Contractors Association. Thirty-eight 1,000 watt light fixtures were installed on the bridge. In 1989 the Light Brigade recruited Portland General Electric to finance the lighting of the Hawthorne Bridge. The project design was based on 1912 photographs. Sadly, the fixtures have fallen into disrepair and the Brigade and P.G.E. are working finding resources to make the repairs. The Brigade originally planned to light a bridge a year. While the group has not met that ambitious goal, the members are still hopeful."

In 1979 because of difficulties encountered by many branches of government due to the power shortage, the legislature limited the duration of special levies to three years. It became evident that the ten year levies which had funded the building of the lighting system needed to be replaced by a funding source more permanent than a three year levy, which allowed no provision for any long range planning.

Serious thought was given to identifying such a source. An item of \$135,860 was included in the 1984-85 budget for hiring a consultant to recommend a source and design a measure to be presented to the voters for approval, and to cover staff time and expense for submitting a ballot measure and a mailing to City residents to explain it.

An aggressive capital improvement plan included in that same budget was made possible because of the \$1,500,000 returned from the Bonneville Power Administration for energy conservation activities undertaken in the previous years. This was part of an energy conservation program of the Federal government. It ended the seven year moratorium on new installations and included half the backlog of requests in residential areas. The \$3,000,000 purchase price which was estimated to be paid off in savings of five years, was paid off in under three years.

The City had benefitted substantially by allowing the power companies to make the capital investment to build the system, and they in turn had been paid a fair return through rental of the equipment to the City. Now that the system was completed, it was to the City's advantage to own and operate it.

As a part of the system, the City now owned the ornamental fixtures which they had assumed responsibility for operating in 1959 upon termination of the special lighting districts. To update their history, in 1984 in the course of a restoration project on the aging fixtures, the Oregonian interviewed Cynthia Kurtz, Street Lighting Manager. She recalled that they were purchased originally in 1926 by the Southwest Broadway merchants and

other downtown business persons who followed their example (as discussed earlier). The fixtures were designed by Union Metal, Canton, Ohio. The top and bottom portions were cast iron and were given a new coat of paint every five years. The center shafts in the earlier days were pressed steel. Later they were handmade with laminated copper which, left untouched, oxidized from exposure to the elements and turned an antique bluish green color. This was an aesthetic feature originally intended and long maintained. (These are now painted).

Ever since Broadway was lighted, as every new project was submitted for bids there was an outcry from local metal trades to supply locally made standards, each controversy being resolved according to the wishes of the local property owners. A locally made concrete standard was promoted, without success. The people of Portland liked the ornamental poles, and they usually prevailed.

During the Depression businessmen who owned them could not afford the power costs, so in lieu of payment P.G.E. issued shares of stock to the owners for the poles. In time P.G.E. bought up all the shares and became sole owners of the lights. Eventually they found it too expensive to store and maintain the ornamental fixtures, which needed different handling than other street lights. Rather than lose the ornamental standards from districts where they had become part of the visual design, the City decided to take ownership and assume maintenance responsibilities.

When more modern light standards became popular and more profitable to manufacture, Union Metal decided to discontinue the old standards. However Commissioner Bean, in charge of street lighting, in attempting to replace deteriorating downtown fixtures, learned that Valley Iron and Steel in Eugene had the machinery to make them. Portland

had patterns made and patented a new version of the design that allowed cast iron castings and a smooth steel inner pole. In December 1979 the city signed a "sole source" contract with the Valley Iron and Steel Company in Eugene which manufactured the cast iron parts and the steel shafts. The City owned the molds, but Valley Iron and Steel could manufacture the fixtures for other cities that still used them. In return, the City got as a royalty, a free pole for every fifteen sold to other municipalities. Ironically, there was a resurgence of interest among architects and urban designers for the nostalgic poles. The City bought the ornamental fixtures with the twin lights from P.G.E. in 1980 and the company's inventory of parts and castings in 1981.

At the expiration of the City's five year contract with Valley Iron and Steel, the royalties disappeared. More suppliers had entered the field and proposals were made for more modern lights. As times changed a demand for brighter lighting arose and the old fixtures were threatened with brighter, more modern appearing lights. Building owners and managers resisted any proposed removal of the antique posts which had become a part of the downtown scene, and which had once been saved by conversion to mercury vapor light. A solution was found by converting once again to high pressure Starting in 1981 the sodium light. ornamentals were converted over a ten year period from 400 watt mercury vapors to 100 watt high pressure sodium vapors. Also from a 2350 volt series service to 120 volt parallel operation which was more efficient and much safer. The City also rebuilt the poles from With this conversion sidewalks up. accomplished, the old fixtures have remained a firmly entrenched part of Portland's identity. To the extent that on the floor of the new Blazer arena, the logo beside the Rose Quarter lettering shows a Portland rose and a pair of ornamental street light globes.



THE ASSESSMENT FEE SOLUTION

he third ten year levy was due to expire July 1, 1985. As it neared its end Commissioner Mike Lindberg, then in charge of street lighting under Public Works, assigned the matter of street light funding as a project for the Public Works Citizens Advisory Committee for the 1982-83 year. The committee consisted of Walter McMonies, Chair, Emil Berg, Bruce Berning, Joan McMahon, Jerry Palmer, Catherine Sohm, Mary Fetsch, John Brauer, Bernice Foster, Debbie Stoller and Helen K. Jones. Staff working with the committee were John Lang, Public Works Administrator, Elsa Coleman, Commissioner Lindberg's office, and Maxine Borcherding, Assistant Public Works Administrator. Cynthia Kurtz headed the Street Lighting Bureau. The committee was warned that Public Works, along with the entire City, would be having major financial and operational challenges.

The Street Light Fund had been administered throughout with a policy of having in reserve enough funds to operate the system for a year, in the event no substitute funding source had been found by that time. The proposed budget for 1983-84 recommended three steps to protect that fund:

- 1. No more conversions from mercury vapor to high pressure sodium vapor unless a source other than the Fund is available.
- 2. Continuation of the moratorium on new lights except in emergency situations.
- 3. Funding only capital projects necessary to protect against deterioration of the system.

Even with these precautions, Cynthia Kurtz warned that the Fund would fall short by

\$214,000 of an entire extra year of operating funds. If conversions could be continued with funds from some other source, the reserve would be sufficient because the additional conversions would reduce the City's annual power cost. The projections assumed a 15 percent energy inflation cost. The total approved budget for street lighting was \$3,898,895.00 for 1983-84.

The Bureau Advisory Committee worked through subcommittees. The lighting subcommittee consisted of Catherine Sohm, Jean McMahon and Cynthia Kurtz. The subcommittee soon learned that before a ballot measure establishing an assessment fee could be presented, an enabling act would be required from the legislature. House Bill 2658 was drafted as an amendment to the City Charter, ORS Chapter 223, and was introduced by Glen Otto, Chair of the Intergovernmental Affairs Committee. The act provided for the annual assessments as they are needed to fund street lighting in the City. As is often the case, the measure included a broader application than the immediate need. Section 2 of the act states:

"When authorized at any properly called election, the governing body of a city may assess, levy and collect annual assessments upon all of the real property within its boundaries for services which benefit the property including but not limited to street lighting, street maintenance and street cleaning." Other sections stated that the measure provides assessments in lieu of any existing serial or ad valorem tax levy for the service, and specified the method for collection and penalties for nonpayment.

The Bureau Advisory Committee approved the measure and authorized Catherine Sohm

to represent them in giving testimony to the legislature. The bill was passed out of committee with unanimous approval and in due course passed the House and Senate and became law.

That was the first step. Next was the appointment of a Steering Committee by Commissioner Lindberg in July. Committee members were: Catherine Sohm, Chair, Kent Layden, Treasurer, Isaac Regenstreif, Dave Anderson, Jack McIsaac, Ken Kraus and Bill Wyatt, Staff members were Elsa Coleman and Cynthia Kurtz. The Committee adopted "Keep Neighborhood Street Lights On" as its filing name. It was assigned Ballot Measure No. 51. Fund-raising was undertaken by Bill Wyatt. The committee and the staff worked with the Government Finance Research Center to analyze how the fee system would work and what the costs would be to the property owners.

They proposed a two-tiered fee system:

- 1. All property would pay a base rate to cover the cost of freeway lighting and a portion of the system used to get to various parts of the city.
- 2. Property with local lighting would also pay a local service rate. This principle would apply whether the property is residential, multi-family or commercial/industrial.

To determine fees, the underlying factors were average square footage of property and a unit cost of providing the service. These combined in flat fees for each type of property. The fee to a residential property would be about \$10.90 if no local lighting was provided and \$28.00 if the property is in an area with lighting. Multi-family and commercial fees would be on a sliding scale.

On August 1 the Council approved submitting the assessment fee measure to the

voters in the form of a Charter amendment for approval at the November 6 election. The Steering Committee went to work to conduct a campaign for a measure that was difficult to explain, at best.

The committee, thoroughly sold on the need for permanent funding for street lighting, worked long and hard, with high hopes for a permanent solution. They spoke wherever a group of voters would have them, distributed brochures, wrote letters and manned the phones. They arranged for inclusion in a P.G.E. poll to save campaign money. They hired the marketing firm of Bowler and Associates to produce brochures and radio spots and advice. In the interest of saving expense, permission was sought to include a flyer explaining the street light measure in the City water bills, and after considerable argument, permission was granted. The meager budget was stretched to make the best possible use of the cheaper print and broadcast media, but it was not to be.

It was an election with a bed-sheet sized ballot with many candidates and issues, and a complicated formula for accomplishing something that had always seemed simple didn't stand a chance. The measure was defeated by a vote of 69,811 Yes (43%) to 92,410 No (57%), in spite of the committee's best efforts and intentions.

A poll taken after the election revealed that only one percent of the voters polled remembered receiving the information in their water bills, so it was hardly worth the effort expended. Most voters seemed not to understand what they were voting on or why it was needed.



THE FIRST THREE YEAR LEVY - 1984-1987

ith the levy running out in 1984, the only recourse was to mount a campaign for a three-year special levy, and this was done. It also was designated as Measure 51, with the slogan "Street Lights, Your Best Security Bargain."

Bill Naito chaired the new steering committee, which included Larry Black, Dave Ford, Richard E. Goff, Ed Grosswiler, Shela Holden, Jim Hulden, Pamela Hulse, Steve Janik, Ken Krauss, Julia Pomeroy, Linda Rasmussen, Isaac Regenstreif, Ruth Roth, Joan Smith, Catherine Sohm, Bob Stoll, John Surrett, Julie Williamson and Bill Wyatt. Bill Naito's zeal even extended to passing out brochures on a street corner. Along with the

zeal, of course, was the expertise behind a great deal of Old Town's development and a thriving import business. Julie Williamson was retained to analyze the strengths and weaknesses of the prior Measure 51 campaign, which helped to focus on target areas for the new campaign and to ensure the best use of promotional funds. Fund raising was a concern for the entire committee. Volunteers and endorsements were sought, and radio time secured. Even The Oregonian grudgingly admitted that there would be no point in defeating the levy, and stated that voters should "Hold their noses" and vote for it. The results, at a nonpartisan special election, were: 20,164 Yes (66%) and 10,361 No (34%).



THE SECOND THREE YEAR LEVY – 1987-1990

It turned out that the first three-year levy stretched to four years, because the inflation rate and energy cost were lower than expected, and the City saved money by continuing conversion to high pressure sodium lights. The taxpayers had a year off from street light levies. But inevitably the need approached for a new levy. Also there was a recognized need for improvement in park lighting which had not been included in prior levies.

It was still felt that a permanent source of funding must be found, but a lesson had been learned about the necessity for a thorough public education campaign before attempting another vote. Commissioner Earl Blumenauer had budgeted funds for a consultant to develop a microcomputer rate model, which was completed in June 1987. He presented the results of this study to the Council along with a range of revenue options in order to develop a consensus among the Council members as to how to address the expiration of the street lighting levy in July 1988 and the Federal Interstate Withdrawal Funds by 1989-90. His proposed schedule culminated with a possible March 1988 ballot measure. As it became apparent that the funds would stretch for another year, the schedule was revised to aim for the March 1989 election.

A new Task Force was named in October of 1988, including:

Don Clark–Housing Authority of Portland Paul Hathaway–Vice President, Northwest Natural Gas Co.

Mike Schrunk-District Attorney, Multnomah Co. Blanche Schroeder-Transportation Bureau Advisory Committee, Chamber of Commerce Catherine Sohm -Chair, Transportation Bureau Advisory Committee Joan Smith-Governor's Office Janice Willson-Senior Vice-President, First National Bank Bill Wyatt-Director, Oregon Business Council

Members were provided with the study report by the consultant, Government Finance Associated, Inc., setting forth short term and long term financing options, and asked to study them and make recommendations to the City Council by December. Their report, dated December 7, 1988, reviewed its analysis of five projected operations:

- 1. Continuation of the service with financing coming from the General Fund or from the Transportation Fund.
- 2. Continuation of the service with financing from a voter-approved serial levy.
- 3. Continuation of the service initially using a serial levy, and shifting to a tax-base increase as a more permanent funding solution.
- 4. Continuation of the service initially using a serial levy, and shifting to some form of street light charge as a more permanent funding solution.
- 5. Discontinuation of the street light service.

The Task Force has examined the financial implications of each of these alternatives. These financial analyses are based on economic assumptions established by City staff and the City's financial advisor, Government Finance Associates. These assumptions are:

1. The City's assessed value will remain fixed over the next several years.

- 2. Inflation will remain at a relatively moderate rate of 4 percent.
- 3. Tariff charges from Portland General Electric (which includes cost of energy) will expand at an annual 3 percent rate.
- 4. The levy will be collected at a rate of 92% of annual assessment
- 5. There will be a 7% investment rate of return.

The financial analyses that follow are based on conservative estimates of economic conditions. Unexpected events, such as a rapid rise in the inflation rate or significant electric rate increases, will reduce the predictive power of these analyses. The Task Force has, however, attempted to minimize the risk by using reasonable and conservative assumptions in developing these forecasts. The result of these financial analyses are presented below.

ALTERNATIVE FOUR: Voter-Approved Levy, Shifting to Street Light Charge System. This alternative involves a voter-approved levy that provides financing for the system until the mechanics are in place for a transition toward a street light charge mechanism. The City has been exploring the merits of some form of charge for street lights since 1982. Most recently, the City commissioned a Cost of Service Report on Portland's transportation system which was completed in June, 1987.

The product of this project was a computer model designed to assist in the transition from the current special levy financing to a street light charge system. In the process of updating the model to reflect the current needs of the street light system, City staff have grown increasingly familiar with its operation and mechanics. It will, however, require 9 to 18 months to institute this type of financing mechanism, depending on whether an existing billing system, (For example, that of the water utility) is used or a new system is developed.

The proposed three-year levy is intended to act as a bridge until the street light charge system is operational. Consequently, if the charge system can be instituted in less than three years the levy will be discontinued at the point when the charge system begins. There will be no overlap between financing through serial levy and through the charge system.

RECOMMENDATIONS: Based on the research performed by the Task Force we unanimously recommend that the City Council approve the financing plan outlined above in financing Alternative Four. The Task Force believes that the combination of a three-year serial levy in conjunction with the development of a street light charge mechanism offers two important advantages. It provides the continuity necessary for continued financing of the system in the near-term, with the promise of long-term financial stability so important to a capital-intensive service like street lighting.

The Task Force supports a levy rate of \$.42 per \$1,000 levy. This rate is \$.08 less than the rate of the levy that ceased at the end of fiscal year 1988. It is sufficient to meet the operating and maintenance needs of the street light system while funding a capital sinking fund for replacement of the system as the condition of equipment declines and new technologies are introduced.

Furthermore, financial analysis by the Task Force indicates that a levy of \$.49 per \$1,000 provides adequate funding for the Office of Transportation to address the needs cited above, as well as adopt the operating and capital needs of pedestrian lighting and street lights within Portland's parks. These facilities are currently not cost effective due to their outdated condition and advanced state of disrepair. We raise this point to provide the City Council with flexibility in addressing the City's public safety goals related to both the Office of Transportation and the Bureau of

Parks and Recreation. This rate of \$.49/\$1,000 is less than the most recent street light levy.

It is the recommendation of the Task Force that a measure for a three-year street light levy be placed before voters on March 28, 1989. In order to meet this schedule a filing must be made with Multnomah County no less than February 16, 1989. Approval of the levy will allow time to: establish the framework of a street light utility; coordinate a billing mechanism either independently or with one of the other City utilities; address the legal issues raised in moving to this form of financing; and conduct a public information campaign and seek voter approval for a charter amendment in May, 1990 that will allow the transition from a levy form of financing to a system charge financing basis.

Consequently, in order to prepare an adequate public information campaign on the ballot issue, we ask that the City Council address this issue as soon as possible.

The report was presented to the City Council on January 2, 1989, with a strong representation that street lighting be considered a utility, as it is in many other cities, and paid for by a user fee as other utilities are. This would provide a permanent funding source and allow for timely capital replacement and accommodation of annexation needs and special projects. Details of the billing system could be developed in the time provided by the threeyear levy. Inclusion of park lighting responded to a situation made critical by repeated severe cuts in the Park Bureau budget, and it was possible to include \$2 million for Parks in the levy and still keep it to \$.49 per thousand, less than the previous levy of \$.50 per thousand.

The Council unanimously approved submitting the levy to the voters at the March 28, 1989 special mail election, and efforts to publicize the measure, designated 26-4, went into high gear. The Task Force was delighted that The Oregonian editorial on February 23, 1989, headed "Approve Street Light Levy", stated:

"Once again Portland voters are being asked to approve a special property tax levy for street lighting. Ballot Measure 26-4 in the March 28 mail election is patchwork financing, but nevertheless rates voter approval.

"More than 35 years ago, The Oregonian urged voters to approve the first special 10-year levy for street lights to brighten a city that was much too dimly lighted. That support was qualified by a proviso that the City Council quickly seek voter approval to expand the City's tax base to include street lighting.

"The Council has not done so, instead returning to the ballot for 10-year lighting levies in 1964 and 1974. In 1977, the state imposed a three-year limit on serial levies, so voters would be revisited more frequently. The Oregonian has objected to lighting-levy requests subsequent to the 1953 measure, but in all cases, the result has been the same.

"Voters said yes.

"Clearly, Portlanders want a well-lighted city. Measure 26-4 would continue that. It also would include improved lighting for park roads and paths, as well as for streets, in the authorization for the first time. Public perception of safety is the reason advanced, but the City Council's cutting of the Parks Bureau budget for the past decade is a more likely explanation for the shift of parks lighting from the tax base to the special levy.

"To the credit of the City Council, Commissioners Mike Lindberg and Earl Blumenauer in particular, the City stretched revenue from the last three-year levy over four years, and has enough money to keep the street lights on for perhaps another nine months if voters reject Measure 26-4.

"Voters should reward good management, not penalize it. Voter rejection now would force the council to cut other services in order to keep the lights on a full year, unless another revenue source was found.

"Perhaps this will be the last levy. Blumenauer has been working with a citizens task force to develop another, permanent funding source for street lighting. The panel has said it needs another nine to 18 months to come up with a recommendation likely to be accepted by taxpayers.

"Whether that occurs or not, Portland should remain well-lighted. Measure 26-4 would levy 49 cents per \$1,000 assessed property value for three years, which is 1 cent less than the levy just expired - again, testimony to cost-saving improvements and frugal management.

"While continuing to urge the City Council to include basic services such as street lighting in the basic tax package, The Oregonian recommends that voters once again approve a special levy for that purpose, Measure 26-4, in the March 28 mail election."

The measure passed with a vote of 63,653 Yes and 32,108 No.

Approval of the levy was welcomed especially by the Transportation administration. The Street Light budget, a part of the overall Transportation operating

expense, had paid its way through the special 1990 Transportation levies. The Discretionary Budget was approved at \$36,595,665 representing General Transportation Revenues. The total approved budget was \$62,289,401. General Transportation revenues are: gas taxes, a City/County agreement for sharing of county gas taxes, parking meter fees and fines, and City General Fund support from Utility License Fees. Non-General Fund revenues are grants and interagency revenues for services provided to other bureaus or jurisdictions. In the 1990 budget General Fund support to Transportation was reduced in the approved budget to \$3.4 million, a cut of \$2.5 million compared to the 1989 adopted budget. It was apparent that the budget was in no position to assume street light operation had the levy failed to pass.



UTILITY FRANCHISE FEES

n 1911 (ORS 221.420) authority was given to cities by the Oregon Legislature L to charge local utilities for use of City owned rights of way. The Oregon Public Utilities Commission (order 36403) approved 2 - 3% of gross revenue as a reasonable compensation for use of city streets and ways and actual costs and expenses resulting therefrom. The order did not state explicitly that the monies collected had to be spent on the roads, but implicitly that commitment was there; and historically the City of Portland has followed the policy of spending a portion of the utility franchise fees on road maintenance. In 1933 the Legislature granted cities authority to charge utilities a privilege tax at a rate of up to 5% of gross revenue earned within city boundaries.

In fact, in 1984 a Transportation fund was set up with 80% of the Utility Franchise Fees for funding operation, maintenance and capital needs of Portland streets and traffic system. In the next three years that was reduced to 27.6%. This erosion resulted in 1988 in a request for assurance of more stable funding of Transportation, and a council meeting was devoted to that issue. Several members of the Transportation Bureau Advisory Committee testified on behalf of Transportation. Following is the testimony of one member:

"For the third year in a row we are here to focus your attention on the need to preserve the infrastructure of our transportation system, including the 1,752 miles of streets. Two years ago, to get your attention, we made coping with the backlog our single recommendation. That backlog which is now 476 miles of streets needing attention, of which 100

miles require major renovation, at a cost of \$38 million.

"A recently completed performance audit verifies those figures. We were not exaggerating in the least - they're out there. Restoring those streets is necessary for public safety and economic development.

"That backlog exists because of drastic cuts. When the Utility Franchise Fee was set up at 3% and again when the fee was increased to 5%, the City supported the position that up to 80% of the fee would be used to fund the City's transportation needs. In the past three years that has shrunk to 27%. This year we are asking for 27.5%, or \$7 million.

"It seems that whenever we take our bucket to the well for funding, it never comes up full. We find not just a hole in the bucket, but a spigot which the City Council in its wisdom operates. Valiant attempts have been made to supplement the supply- the City/County Road Agreement, an earlier 2 cent gas tax increase, the street light levies - but we find the spigot is draining it away faster than we can fill it up.

"Last year there was hope in the measure then before the Legislature for the 6 cent gas tax increase. That was based on a monumental two-year study of transportation needs throughout the state, and a case was made for funding to supplement - not to supplant - the funds that Oregon communities were then able to spend on transportation. Commissioner Blumenauer, in endorsing that legislation,

pledged to use the proceeds for transportation needs. The bill was somewhat watered down, but the gas tax passed.

"In this year of the \$11 million shortfall in revenue, this gas tax money may look like manna from Heaven, but you must remember that it is committed to supplement the current service level of transportation spending. If General Fund Support is drained away and the gas tax increase must take its place - at no gain on the backlog - we break faith with the Legislature, and a lot of dedicated staff and volunteers are frustrated and disillusioned. And the cost of restoration goes up as the backlog increases. The costs of repair are four to five times as great when pavement deteriorates to 75% of its intended life span.

"We urge that the Council adopt a policy of giving a measure of stability to Transportation funding - at least the 27.6% of the Utility Franchise Fee.

"The voters a couple of years ago provided a means to measure the City's efficiency in spending public money - the performance audit. The Auditor, Barbara Clark, informs me that to date her office has recommended savings of approximately \$4 million in the audits performed so far, and that only \$1.5 million of those recommendations have been implemented. I would urge you to pursue the remaining \$2.5 million diligently, and leave that spigot turned off."

The Council adopted a policy establishing 28% of the Utility Franchise Fee as a target for Transportation which the Council would attempt to achieve but could vary from depending on general City service needs and financial conditions.

This was not the firm guarantee the advisory committee hoped for, but gave a measure of reassurance, and in 1993 and 1994 the Utility Franchise Fees were in fact used to fund part of the street light budget as part of the transition to General Fund support of street lighting. However, in a March 13, 1996 report to the City Council from the Office of Finance and Administration which had been requested to review utility franchise fees assessed against City owned utilities, this statement appears on page 3:

"Although previous Councils have treated the utility license fee revenue stream as purely discretionary revenue allocable to programs in accordance with Council determined priorities, there was a short period of time when a portion of utility license fee revenues were dedicated to a specific program area. This occurred coincidentally with the creation of the Office of Transportation as a quasi-enterprise fund with a separate financial identity from the General Fund. At that time (FY 1984-85) a transfer from the General Fund to Transportation was initiated. The transfer was formally linked to utility license fees in FY 1987-88, when Council adopted a resolution providing a target amount of 28 percent of projected utility license fee receipts for Transportation programs.

"This transfer was discontinued in response to Measure 5 during the FY 1991-92 budget process, but responsibility for funding street lighting was transferred to the General Fund so that funding for street lighting could continue with discretionary revenues, including utility license fees. Although the practice of targeting a portion of utility license fee revenues for Transportation programs has been discontinued, the Transportation Funding Policy remains 'on the books' as an element of the City's Comprehensive Financial Management Policy. However, the Council has chosen not to follow this policy in recent budgets."



MEASURE 5

s has been suggested earlier, the villain in the saga of street lighting's efforts for a permanent funding source was the infamous Measure 5. A growing taxpayer revolt had been brewing and several other initiatives had been attempted. In November 1990, however Ballot Measure 5 passed. Basically it is a constitutional amendment that limits property taxes for all local governments. During and after the fiscal year 1991-92, taxes imposed upon any property are separated into two categories:

- 1. Those revenues raised specifically to fund the public school systems.
- 2. Those revenues raised to fund local government operations other than public schools.

The amendment limited the 1991-92 property taxes for public schools to \$15 per \$1,000 of market value, and for non-school government operations to \$10 per \$1,000 market value. Schools gradually decrease to \$5 per \$1,000 in 1995-96 and after. Taxes for government remain at the \$10 per \$1,000 limit. The rate for bonds and certain special assessments is not limited by Measure 5.

The resulting pressure to support General Fund programs with available property tax dollars reduced from about \$14 per \$1,000 to \$10 per \$1,000 caused the City Council in March 1991 to cancel the third year of the street light levy. The remaining funds in the Street Light Fund would be sufficient to support the program until January 1993. A replacement revenue source needed to be determined and implemented prior to that time.

With a year less time than expected, efforts were speeded up to identify a revenue source for the street light program:

- 1. Cities nationwide as well as cities throughout the State of Oregon were surveyed to determine how street lights and/or transportation functions are funded.
- 2. Legal advice was sought from the City Attorney's Office and the City's Ballot Measure 5 Committee concerning the legality of funding options.
- 3. Seven funding alternatives to the property tax levy were evaluated for legal, financial and administrative issues.

Commissioner Blumenauer appointed a Street Light Levy Replacement Citizen Advisory Committee in May 1991. The Committee met weekly in June and July. Members were:

Catherine Sohm, Chair, Transportation BAC Bill Beebe, Transportation BAC Mike Porter, P.G.E.

Blanche Schroeder, Vice Pres. Portland Chamber of Commerce

Wayne Pearson, D.A.'s Office

Rich Williams, Vice Pres. Assoc. for Portland Progress

Bob Dawson, P.P. & L

Ellen Lowe, Ecumenical Ministries of Oregon Richard Gray, Street Light Manager, staffed the committee.

The members were supplied with a thorough Alternative Analysis Report, survey results and funding options. They were charged with recommending an alternative to the three year street light levy.

The seven alternatives addressed were:

- 1. Street light user fee.
- 2. Gas tax either city or county-wide.
- 3. Shift service to utilities.
- 4. Form a Public Utility District.
- 5. Purchase electricity from the Bureau of Hydroelectric Power.
- 6. Sale and lease back.
- 7. Include in existing city revenues.

Over several weeks the committee examined the advantages and disadvantages of each, and speedily concluded that there were no easy answers. All the options posed difficulties and had significant unresolved issues. They unanimously agreed that continuing street light service was a crucial public safety measure. They concluded that the user fee option was the most equitable, long term, adequate and - hopefully - not in conflict with Measure 5. It had widespread use by other jurisdictions and had been workable and acceptable to the citizens in those jurisdictions.

The other options were discarded for various reasons. The gas tax was opposed by the County. The utilities, while willing to consider the third solution, had legal concerns and there were administrative problems. Formation of a PUD, purchase of power from the Bureau of Hydroelectric Power, and sale and lease back were evaluated as impractical for legal and administrative reasons. The last alternative, in light of the last budget hearings, was considered not to be a viable one if the quality of the service was to be maintained.

To determine a basis for a user fee it is necessary to measure the benefits derived from the service by individual residents and businesses. Many transportation systems throughout the United States were using a trip-generated system developed by the Institute of Transportation Engineering. It is based on the degree to which the street is

used. The revenue necessary to operate the service is divided by the total number of trips city-wide to arrive at an annual charge rate. This rate multiplied by the average trips made per day gives the total amount charged the customer. Users could be grouped into classes. For example, all residents would pay the same, which was estimated to be less than \$20.00 per year. This compared favorably to the 1990-91 average cost of the street light levy of \$28.24 per year.

The committee recognized that there were several unanswered questions which only the Council could resolve:

- 1. What level of service should be included in the fee?
- 2. If capital construction is not included in the fee, how should it be paid for (e.g., gas taxes, special districts, LIDs, etc.)?
- 3. If a charter amendment is necessary, should broader user fee authority (beyond street lighting) be sought?
- 4. The cost implications of granting exemptions should be considered. Decisions must be made regarding potential exemptions to the fee, including:
 - a. Non-profit organizations, including religious organizations (representatives of these organizations have objected to inclusion)
 - b. Transit generated trips
 - c. City government
 - d. Other governments, including schools
 - e. Low income or senior exemptions
- 5. The billing method will require several decisions, including how to deal with non-payment and collections, designing the fee to simplify administration, payments to the Water Bureau for billing services, etc.

- 6. Legal issues and the relationship of the fee to the property tax limitation must be considered.
- 7. There will be several issues regarding the methodology used to develop the fee:
 - Should the sole basis of fee calculation be trip generation, or should it be combined with other measures such as front footage?
 - How many customer classes should be developed?
 - What emphasis should be made on non-auto trips, including transit?
 - Should costs be allocated uniformly across all customer classes or should arterial and residential costs be allocated differently?

The Council accepted the Task Force report on October 16, 1991 for further study, but showed little enthusiasm. They felt the climate was not right for a user fee to be accepted. In fact, the Oregonian strongly cautioned against it. Some questioned the fairness of giving all residents the same classification regardless of the number of cars they owned. With the Measure 5 dislocations to cope with, they were not anxious to tackle the problems referred by the Task Force. The cost of hiring consultants to design a plan to submit to the voters in a very tight budget year was probably a consideration, and the uncertainty of the voters' response was a large factor. For whatever reasons, action was deferred.

In the 1993 budget preparation, Commissioner Blumenauer found funding without a new source because of higher than expected property tax revenue. He recommended that in the 1994 budget preparation the street light program be funded by the Utility Franchise Fee. If a

decision should be made to adopt a user fee, this would provide time to put it in place before funding ran out.

The higher than expected property tax revenue, while welcome to the budget makers, was a rude surprise to the Measure 5 advocates because Measure 5 limited rates and not taxes. A rapid rise in assessed valuations effectively reduced the anticipated savings to the individual taxpayer and many appeals were filed.

When considering the 1994 and 1995 budgets, the Council continued a three-year transition to full General Fund support of street lighting, using Utility Franchise Fees.

In 1995 the City hired the firm of R. W. Beck to perform a utility rate analysis for street lighting and traffic signal tariffs. The City's previous rate case focused on maintenance practices and not power costs. Power costs are more complicated and difficult to evaluate and require considerable expertise.

According to a memorandum to the file from Richard Gray, Street Lighting Manager, dated Dec. 8, 1995:

"The City decided to study the cost of electricity for two reasons: (1) the belief that rates for street lights and traffic signals are too high relative to other customer classes and (2) to prepare for the future restructuring of the electric utility industry. Street lighting rates are roughly the same as residential customers and higher than many industrial customers. This is true despite the different character of the street lighting load: unmetered service at 75% off-peak consumption and a predictable 100% capacity when on. Portland has additional advantages as a customer: a reliable 8.5 megawatt load and a single bill.

"The other motivating factor is the seemingly inevitable transformation of the electric utility industry into a much less regulated, competitive environment. This may allow customers, particularly large customers like the City, to buy power from different sources on the open market and have it delivered by their local utility. It is expected that this will drive prices down, especially for large customers like the City. The more the City knows about power rate structures, the better it will do in the marketplace. Traffic Management is now working with the Portland Energy Office on a broader analysis to see how cities can respond to this new environment. R. W. Beck's contract calls for a survey of other utilities and cities to compare how street lighting and signal rates compare to other customer classes. Following this, the consultants will look at how P.G.E.'s street lighting rates are established. P.G.E. has been cooperating with the City in this work. The City's goal will be to provide the analysis to justify rates that more appropriately take into account the special circumstances of street lighting. This study will be done in the winter of 1996."



THE FUTURE

o after forty years, three ten-year levies, two three-year levies, numerous advisory and steering committees and two task forces and their reports, a failed Assessment Fee ballot measure and an abandoned user fee effort, street lighting is back in the General Fund. The undernourished waif, removed from General Fund custody by the voters for non-support in 1954, is back as a husky, self-confident adult with a hearty appetite. Instead of having an independent

income, the system must now rely on the General Fund to allocate street light funding needs to Transportation. With a 1996 vote on Measure 47 and similar future property tax cutting measures threatening to further restrict local government funding, it is up to the voters to monitor the future welfare of the street lighting program and to inform the City Council of the level of service they expect and will support.