DRAFT

City of Seattle
Department of Community Development/Office of Urban Conservation

Landmark Nomination Form

Name The Lake Union Power Generating Plants **Year Built** 1912, 1914, 1918, 1921
(Common, present or historic)

Common Name: The Lake Union Steam Plant
Historic Names: The Lake Union Hydroelectric Power House and the Lake Union Auxilliary Steam Electric Plant

Street and Number 1179 Eastlake Avenue East

Assessor's File No.

Legal Description **Plat Name** **Block** **Lot**

Present Owner Seattle City Light **Present Use** Storage
Property Mgm, Room 605
Address 1015 Third Avenue, Seattle, WA 98104

Original Owner City of Seattle Lighting Dept **Original Use** Power Generating Facilities

Architect Daniel Huntington **Builder** Unknown

Lake Union Power Plant

DESCRIPTION

The Site

The Lake Union Power Plant site is a wedge shaped property at the intersection of Fairview Avenue East and Eastlake Avenue East on the southeast shore of Lake Union. Lake Union was a historical industrial area in Seattle. As early as the 1850's, it was the location of numerous sawmills. In 1884 the Lake Union Lumber and Manufacturing Company was built at the south end, along with two brick making plants. The first industrial function of the lake was transportation, initially with logs and later with the barging of coal which was carried across Lake Washington, "portaged" across to Lake Union and barged to the south end to be transported by train to coal bunkers on Pike Street. Early records note the location of sawmills, several ship builders, a tannery at Edgewater (Stone Way) and the Pacific Iron Works at Fremont. In the 1890's these were joined by an asbestos factory, an ammonia and chemical plant, and the gas works plant built by the privately owned Seattle Lighting Company (later the Seattle Gas Company), in 1906.

Varied industrial growth on Lake Union was spurred by World War I and by the opening of the Lake Union Ship Canal, the Locks and the Montlake Cut in 1916. Navigational use of the lake, beginning in 1917, accelerated the growth of marine-related businesses and other industries that used Lake Union as a transportation link. In close proximity to the Steam Plant were located the Ford Motor Assembly Plant (the present Craftsman Press Building), the Lake Union Drydock and the Coolidge Propeller Company. Lake Union's most famous early industrial use was the original seaplane hangar of William Boeing, located in 1916 at the foot of Roanoke Street.

Locating the Hydro Power House at the southeast corner of the lake allowed for direct fall for the 3400 ft. penstock that carried water from the Volunteer Park Reservoir, 412' above. The Steam Plant location took advantage of barge transportation on the lake. The Lighting Department's 1911 Annual Report (Page 59), "It is intended that the steam plant be situated on the same site which will be accessible for its fuel supply from the Northern Pacific Railway, or by the new Lake Washington Canal." The open waterway to the west of the Power House and Steam Plant allowed for easy access. When Fairview Avenue was constructed to the west of the power plant it was a raised street built on pilings so that water access was maintained.

Vast changes have occurred in the vicinity of the plants, especially in the 1960s: construction of the I-5 Freeway occurred to the east one block, and the use of the lake and surrounding neighborhoods has changed from an industrial function to a recreation center bounded by a mix commercial, residential and transportation uses. These changes have occurred along with

efforts as early as the 1950s to clean the lake water of pollution. Pollution clean-up includes the PCB removal at the Steam Plant in 1986, an action that in itself was described by City Light as a "landmark effort."

Due to the power plants' highly visible location and distinctive form they have always served as urbanistic landmarks to communities around Lake Union. They are a gateway to the Eastlake neighborhood had a signal to planes that use the lake as an international airport. The stacks of the Steam Plant, which rise above the surface of the nearby freeway, punctuate the skyline to create a monument to industry in the city. Appropriately this is a monument that is visible by land, by water and by air.

The Hydro Plant

The Lake Union Hydroelectric Plant is located at the south end of the City Light site, between the 1914 Steam Plant and a mill-type masonry warehouse building. The Power House, as the building was originally called, was designed by Daniel Huntington in 1911 and constructed in 1912, with subsequent modifications by Huntington in 1914.

The Power House is a single story, wood and concrete frame structure with a basement level below the grade of Eastlake Avenue. The primary elevation is the east one on Eastlake Avenue (original drawings show no indication of Fairview Avenue, which was built later on pilings). The building is a stucco-clad, clay tile, gable-roofed structure, with its ridge running parallel to the street. Two small concrete towers, originally containing cross arms for transmission lines, are set at the sides of shed dormers in the center of the east and west roofs. A hipped-roof monitor sits squarely at the center of the ridge. Wide, gabled parapets project up from the north and south walls. Capped with concrete coping these were likely designed to serve as fire walls to separate the Power House from neighboring buildings.

In addition to the tile roof, elements of the Power House include decorative wood brackets, wood window grills and recessed, picked-surface, stucco panels arranged symmetrically on the east and west elevations. The windows and doors are framed by classically-inspired, recessed architraves, and a continuous concrete belt curse is provided to set the window sill line. Divided sash windows, 4' x 8', are used on all elevations at the first floor and a cast concrete sign is set above the east. A pair of panel doors with a glass transom was originally set into the front opening at the east elevation to provide a small covered entry. This was changed in 1914 when the doors were moved forwarded to their present location on the face of the building. The other change to the exterior at that time was the removal of grillwork and installation of windows at the two dormer and gable ends. When the building ceased to operate as a generating plant, the cross arms and exterior wires were removed. But for these changes, the exterior of the Power House today is original.

The details and massing of this building are typical of a historic revival style. The original roof towers clearly expressed the use of the building and the simple symmetrical arrangements of elements spoke of its utility, but the building's size and style gave it a domestic character.

In a later design in the Mission Revival Style, the Fremont Branch Carnegie Library (1920), Huntington's work is clearly romantic with an asymmetrical plan and decorative tilework. The effect of the design is similar to that of his as was the Italianate Revival styled City Light Substation (1907). The Lake Union Power House was a contradictory hybrid: a new building type clothed in an old style. Contrasting the design of the building with the neighboring Steam Plant, constructed only two years later, clearly suggests the revolutionary character of the later building.

Originally the basement of the Power House contained the power generating equipment and the first floor, an open space with exposed rafters, contained storage and office space. Modifications in 1914 provided a loft darkroom for the Engineering Department's staff photographers, which has since been removed. Although the end of the 40" steel pipe from the Volunteer Park Reservoir is still visible, the only remnant of power generation within the Power House is a braced concrete pier in the basement that once supported the turbines. The Power House generator and turbines were removed in 1932 and the building became a battery storage room for the steam generators of the adjacent plant. It is rumored that its generators were sold to a Christian radio station in Ecuador, calling itself "The Voice of the Andes" (Blomquist, n.p.).

The Steam Plant

The initial Auxiliary Steam Plant, the first of three phases of the building, was built to the north of the Lake Union Power House in 1914. It is a concrete frame structure, a parallelogram in plan, approximately 90' deep, 100' in length along Eastlake Avenue and 47' in height (as measured from the street level; from the basement 65'). A concrete frame of 2' x 3' columns describes six bays on the primary east and west elevations, and five bays on the north and south. Brick was originally used as infill material on the north wall in anticipation of future expansion of the original plant.

The internal structure of the building consists of concrete girders spanning to a partition of concrete columns and plaster walls that separates the building into two large volumes. Steel Warren trusses support the relatively flat concrete roof. The 98' x 34' Generator Room is located at the first floor, east side of the building. Below the roof trusses a continuous corbelled edge beam supports a steel craneway that runs the length of the room. The Boiler Room is on the west side of the first floor. It contains four, masonry roofed Stirling boilers, feed and fuel

pumps, miscellaneous tanks and generation equipment. The boilers are grouped in pairs, each approximately 35' x 34' x 30' in height. Two steel stacks sit above the boilers, penetrating the roof near the center of the building and rising above the roof 95+'. The spatial quality of the Boiler Room is one of compression, as the equipment seems to use all available space. This spatial effect contrasts to the east room which contains an Alis-Chalmers generator and switching equipment as isolated elements set within an open, light-filled space.

An open stair at the southeast corner of the Generator Room leads to the basement, 19' below the first floor. As with the floor above, the basement is subdivided into two major spaces with additional room provided by an areaway under the Eastlake Avenue sidewalk. In contrast to the open span structure of the first floor, the basement is filled with columns to support the weight of the floor and generating equipment above. The building foundation consists of concrete pile caps and pilings driven into the lake bottom (in 1914 the basement floor level was only 3'-3" above the water level).

Because of subsequent additions to the Steam Plant the exterior of the 1914 building consists primarily of the east and west elevations. Originally all four elevations were characterized by the tall steel, industrial sash windows that span between the concrete piers. The windows stretch from continuous brick sills 35' to terminate in flat arches at the bottom of the roof trusses. The windows are divided horizontally by intermediate I-beam supports and vertically into three window sections; subdivision into 13" x 20" panes provides a hierarchy of scale from the massive concrete frame to the tracery of the sash. The overall impression is one of both strength and transparency. The 1914 plant utilized window sash glazed on the interior, with the flat window bar to the exterior. The face of the glass in thess portions of the plant were held to the exterior face of the frame, a detail that gives the Steam Plant a curtain-wall expression. This effect seems advanced for a building designed by a municipal architect in a provincial northwest city. In its tectonic expression of concrete and glass the 1914 portion of the Steam Plant compares with European industrial building designs such as Gropius' A.E.G. Turbine Factory, Berlin, 1907 or Gropius and Meyer's Fagas Boot Last Factory, 1911.

Entry into the original building is through an access door located between the Hydro Power House and the Steam Plant, and through a pair of doors located on the east elevation. The original doors of the plant are panel type doors with industrial sash transom windows above. In the Second Unit these have been replaced by solid doors set into a CMU infill wall.

The Lighting Department's Biennial Report for 1914-1915 describes the Lake Union Auxiliary Steam Electric Plant as a "complete modern steam generating stations and one of the most economical in the United States" (p. 40). The report contains a lengthy

description of the boilers, turbines and their generating capacity, but very little about the architecture of the plant. It notes, however, that the building's "most noticeable feature is its open daylight appearance, due to the fact that all of the space between the columns is occupied by windows." The windows brought natural light into the building, and provided ventilation and views into its workings. The windows are both floor levels were painted black during WW II and they remain painted today to limit solar heat gain in the building.

The Second Unit addition to the Steam Plant was designed in 1917 and constructed in 1918. The changes to the building that occur with it include expansion of the generating capacity and its physical size. Five additional bays a total of 80' in length, four additional boilers, an additional turbo generator and two additional stacks are provided with the Second Unit. Architecturally there are few changes: a raised parapet pediment is added at the east end bay of the original plant, and rather than a continuous cornice the words "City Light" are cast in the concrete below this pediment. Except for this formal identifying gesture, drawings suggest that in other ways the Second Unit is simply an expansion based on the original design. Internally the plant was open as a single functioning building.

The last addition to the Steam Plant, the Third Unit, was designed in 1920 and constructed in 1921. It is with this addition that the exterior of the Steam Plant assumes a more formal, civic appearance. In size the Third Unit extends the building eight bays, an additional 128' in length. The plant's height is also increased with a second story added at roof level of the east side. As with the earlier portions of the building, the exterior of the plant is a concrete frame with industrial steel sash windows. Internally the three buildings were open as one, with the north windows from the Second Unit reinstalled at the final north elevation. Internal additions and changes with the 1921 addition include an elevator at the northwest corner, three skylights above the Boiler Room, exhaust ducting within the partition wall, and a catwalk leading from the elevator landing to the Second Story. In function the Third Unit operated in much the same manner as had the earlier portions of the Plant, with generation and boiler equipment separate. Distribution equipment is housed in the 126' x 38' Second Story Penthouse. With the addition of six boilers another turbo generator and three stacks, the total capacity of the plant was raised to 30,000 kilowatts.

A change in the exterior massing of the Third Unit demonstrates the increased formality of the Steam Plant from an industrial building to a civic structure. The six middle bays of the east elevation of this addition repeat the fenestration pattern of the earlier building but the end bays are solid walls, slightly recessed from the front plane of the building. On the east elevation two 30' x 9' glazed terra cotta panels of garlands and classical geometric patterns replace the window areas. Above these panels, aligned with the windows of the second floor, two

11' x 7' panels proclaim "City Light Plant No. 3, MCMXX" within a decorative border. A tall second floor cornice and elongated decorative brackets are used to emphasize the apparent weight of the building and enframe its title panels.

In addition to these changes, there is a subtle change in the window detailing of the Third Unit. The industrial sash, which on the earlier plant appeared as a taut curtain, is placed inside of the concrete frame to a greater depth. Along with the increased proportion of solid material on the facades, this change makes the building appear heavier and less transparent. The effect, combined with the terra cotta signage and decoration, changes the utilitarian expression of the building. Given the history of City Light and its political efforts to establish itself and gain support for public power between 1914 and 1921, it seems clear that the Lake Union Steam Plant was designed to serve as a civic symbol for the agency.

Although it is an obvious feature of the Lake Union Steam Plant, its poured-in-place concrete structure is worthy of some discussion as it exemplifies a considerable advancement in construction technology in Seattle. Reinforced concrete was first used in mid-19th century America for canal walls, building footings and bridge construction. Engineer John Ransome experimented with this construction in San Francisco as early as the 1870s, and concrete buildings were built there as early as 1889. In Seattle the early use of concrete was inhibited by the easy availability of alternative materials such as wood and brick. These were preferred materials, along with steel and hollow clay tile, even after the fire of 1889. The structural capacity of reinforced concrete was more fully explored by the turn of the century, beginning with multi-story construction, but Seattle buildings of this vintage suggest a prejudice against the utilitarian nature of the material: concrete work is visible on the alley sides of buildings that continued to be brick faced or stuccoed. The earliest expressive use of concrete was with new building types -- power houses and fuel storage buildings -- where the technical quality of the material was appropriate to their industrial character and where concern with combustibility was foremost.

Experiments and refinement of concrete construction occurred with other civic buildings such as the Chittenden Locks in Ballard, designed by Carl Gould in 1914. At the Lake Union Steam Plant formality and classicism were increasingly provided by terra cotta embellishment at the corners and edges; at the Locks it was provided with classical door and window details and by the curved mansard roof form.

That these early reinforced concrete buildings evidence skill and craftsmanship may be underscored by an understanding of early construction. Ready made, truck-delivered concrete was not available until the 1920s, and the concrete used at the Steam Plant was mixed in small batches at the site. The durability and

uniformity of the material indicates great care during construction. Likewise, so does the craftsmanship of its formwork. "To design concrete is to design formwork" according to historian Carl Condit. This is a description that clearly fits the Steam Plant: project photos show the erection of two sequential buildings, one of 10" and 12" boards and the subsequent poured concrete one.

The concrete structures of the Lake Union Plant (1914-1921), the Georgetown Generating Facility (1906), the Lighting Departments Aloha Street Substation (1915), its Cedar River Power House (1914) and Gorge Plant (1923) are examples of a new building type where both utilitarian functions and the character of construction materials are clearly expressed. With the transparent industrial sash windows, and visible machines within, those buildings are the earliest architectural expressions of a "factory aesthetic" in Seattle. This aesthetic glorified mechanical production as a symbol of industry, power and progress. Architecturally later led to further engineering explorations of poured and precast concrete building systems, and to image-conscious, non-industrial Modern buildings. Thus the craftsmanship, experimentation and expressive qualities of the Lake Union Steam Plant place this building in the context of significant architecture.

SIGNIFICANCE

Introduction

The Lake Union Electric Generating Plants are a significant part of the early development of Seattle City Light and the economic development of the city. Individually, the buildings are linked to specific events in the historic battle to establish municipal power facilities. Together they are related to the regional and national public utility movement that developed during the Progressive Era of the late 1800s and culminated with creation of the Bonneville Power Administration in 1937. The Lake Union buildings constituted two of the three generating facilities that made up the Seattle Lighting Department's system until 1924. This system manifested the planning vision of two men who figure significantly in the history of the city and the region -- City Engineer R.H. Thompson and engineer and Lighting Department Superintendent J.D. Ross.

Architecturally, the two buildings demonstrate the design virtuosity of Daniel Huntington, who served as the City Architect from 1911 - 1925. The buildings' designs and construction technology trace the development of a genuinely American style of industrial modernism. It is a style that was and still is evocative of the functions within a building. Thus the Lake Union Plants served as a civic symbol of power and urbanism. The Steam Plant in particular is an outstanding work by Huntington and one that represents a new building typology of reinforced concrete power generation facilities.

Due to the plants' highly visible location and distinctive form they have served as strong visual landmarks to neighboring communities that surround Lake Union. Their location on one of the few remaining open shorelines is a reminder of the lake's rich industrial past and the time during which building and water were linked for transportation functions.

Together the Lake Union Power House and Steam Plant are worthy of designation as Seattle landmarks as they meet all six of the City's ordinance criteria.

The Planner

City Engineer, R. H. Thompson, was described by Seattle's mayor in 1907 as being "the brains of the Administration." An overview of Thompson's life and accomplishments, however, suggests that his planning for the growth of the city and its impact extends far beyond the tenture of any single mayor. For over thirty years he directed the pattern of Seattle's physical development -- its topography, street system, transportation, port facilities, utility and power systems that shaped and still shape the entire cityscape.

Thompson was born in 1856 in Hanover, Indiana. He graduated with a B.A. degree from Hanover College in 1877 and worked as a teacher and surveyor in California before coming to the Northwest in 1881. His earliest work in this area was as a surveyor for coal companies in Newcastle, work that included assistance in planning the Portage Bay Canal that linked Lakes Union and Washington. Thompson became an assistant city engineer in 1883 and was appointed the city engineer in the following year. Except for a brief time, from 1886-1892, when he worked in Spokane and Seattle for the Snoqualmie Branch of the Northern Pacific Railroad, Thompson held that post until 1921.

R. H. Thompson's role in Seattle was similar to that of Robert Moses in New York. As city engineer he planned, constructed and expanded the city road system giving access to what were then isolated communities -- the White River Valley, Rainier Valley, the Lake Union basin (via Westlake Avenue), Interbay and Ballard. He proposed and established the Cedar River Water Supply System, which was completed in 1914 with over 28 miles of piping from the designated watershed to reservoirs on Capitol Hill and West Seattle. He planned and executed the famous Denny Hill Regrade, 1898-1902, removing an estimated 5 million cubic years of earth and leveling streets up to 107' in depth. Additional regrade projects under his direction included the Pike Street Regrade and Jackson/Dearborn Street Regrade, 1909. It is estimated that a total of 16 million cubic years were excavated during his street construction projects, and a total of 25 miles of streets were regraded. Under Thompson's direction the first north trunk sewer was planned and completed in 1914. Thompson was instrumental in establishing the Port of Seattle, in directing the dredging of the Duwamish Waterway and in acquiring the federal funds required for building the Chittenden Locks and the ship canal that linked Elliott Bay to Lake Union. His vision extended to the concept of a Pacific Rim economy, for which he advocated international trade connections between the Port of Seattle and Far East ports as early as the 1930s.

The municipal lighting system, later Seattle City Light, was established by R. H. Thompson. He is credited with obtaining changes in the City Charter to allow for the publicly owned utility. He oversaw the construction of Seattle's first power plant at Cedar Falls in 1904. He helped create the Light

Department, first as a division within the Water Department and later, in 1910, as a separate agency. He hired engineer J. D. Ross in 1903 and in 1911 he assisted in his appointment as superintendent. He also directed construction of the Lake Union Power House, which used water pumped from the Cedar River to the Volunteer Park Reservoir.

Thompson's career spanned from the gold rush, post-fire era when Seattle was a pioneer city of 50,000 people, that of an established urban center with a regional and international based economy and a population of over 330,000. His vision during this percent of great change was of a growing city through the provision of abundant clear water, heat, light, good sanitation, adequate roads, and through the linking of the resources from "the hinterland" to those of Seattle. It was a vision of a vital economy that included low cost, available power and a system of regional resource management that was carried forward by Seattle City Light's Superintendent, J D. Ross.

The Visionary

J. D. Ross is described as "legendary" by numerous sources and in many histories of American power generation, Seattle and the Northwest. it is not difficult to confirm this characterization upon learning of this man's impact on Seattle and the public power movement throughout the U.S. Ross served as superintendent of Seattle City Light from 1911 to 1937. Upon his death in 1939 he was eugolized by president Franklin Roosevelt as "one of the greatest Americans of our generation" (Dreher, p.1). During his life J. D. Ross was instrumental in designing and building landmark hydroelectric dams, power plants and distribution systems throughout the Northwest. Ross achieved his vision of an economic base for Seattle through public power policies. He was instrumental in advancing the use of electricity in commercial, industrial and domestic settings. In the context of Seattle City Light and the Bonneville Power Administration, for which he served as the first administrator, Ross carried forward the reform goals of the Progessive Era in establishing public control of regional natural resource systems.

Ross was first hired to work for the Seattle Lighting Department by R. H. Thompson in 1903 in designing the city's Cedar River Electric Plant. His qualifications for this work have been described as unimpressive: born in in Ontario in 1872 his formal education stopped after two years of high school. His early work included teaching, from 1892 to 1898, and subsequently tramping the gold fields during the Yukon Gold Rush. He worked in an Alaskan fish cannery before reaching Seattle in 1899. He began working as an electrican and seeking employment in this new field. Ross prepared his plan for the Cedar River system prior to his interview with Thompson, the result of years of interest in chemistry and electricity. One biographer describes it as quite an undertaking:

> The electric-power industry was then only twenty years old: Edison's pioneer station ... had started supplying direct current to lower Manhattan in 1882. The range of direct current was limited and for long distance transmission it was soon supplanted by alternating current at high voltage... (Ross's) Cedar Falls station... had only a fraction of the capacity of the first Niagara installation, and coming eight years later was scarcely comparable as an engineering achievement; but the transmission line to Seattle, designed for operation at the daring potential of 45,000 volts, attracted considerable attention in engineering circles. Construction was completed in 1904 and the success of the tests confounded local skeptics (Dreher, p.2.).

The Cedar River Plant provided street lighting under municipal ownership, and the Lighting Department sold excess power at 6 1/2 cents to 8 1/4 cents per kwh, in contrast to the going 20 cent rate set by competing, privately-owned electric companies. Thus began the competition between public and private ownership of Seattle's electric utility, and the city's first effort at promoting its local economy through power rate policies.

Ross was promoted from engineer to superintendent of The Lighting Department in 1911. From that time he devoted himself to the public ownership of power. Ross explained the philosophy of "City Building" in the preface to The Lighting Department Annual Report (1911): "We feel that one of the principal uses of the City Plant is to furnish abundance of power at the lowest rates in order that we may bring many new industries, both large and small, to Seattle, with payrolls to employ more men and establish the city as a manufacturing center... what we need and all should work for is to build up the New York, the Pittsburg and the Niagra of the Northwest within the boundaries of one city -- Seattle."

Under Ross's direction the municipal plant grew to become, by 1915, the largest city-owned system in America, with 42,000 customers. At that time the generating facilities consisted of three power facilities -- the Cedar River Hydro Plant, and the Lake Union Hydro Plant and Steam Plant -- in which together provided capacity up to 30,000 kilowatts. Ross' campaigns for public power included direct appeals to the citizens of Seattle with annual reports, and radio broadcasts that accompanied each bond issue. It also included direct lobbying of Woodrow Wilson's administration in 1918. Ross's lobbying efforts resulted in the Secretary of the Interior's granting Seattle the development rights to the upper Skagit River hydroelectric dam sites -- sites that had been monopolized until that time by the so-called private power trust." Acquisition of the Skagit River sites was critical to the expansion of what was to become the City Light system, and Ross's success was viewed as a decisive victory in the battle between pubic power and private. It meant that construction of additional generating facilities within the city, such as the Steam Plant, would be minimal. By 1924 the first of three Skagit developments was installed, producing over 240,000 kw for the

Lighting Department's 82,000 customers. Average power rates were reduced to 4 1/2 cents per kw/hour. Ross's vision of "City Building" through a competitive power rate structure was becoming a reality.

The inner-city generating facilities played an important part in this early history of Seattle City Light under J. D. Ross's direction. The Hydro Plant had been built as an emergency facility that served in this capacity until 1932. The Auxiliary Steam Plant was envisioned as producing steam for building heating, a plan that was never implemented. Instead this plant produced power for the Lighting Department's system during the interim period between the dam building projects of the Cedar and Skagit Rivers. Its expansion two times demonstrates the power needs of the an increasingly industrial city, particularly during World War I. The plant was constructed as an alternative to hydroelectric projects by Seattle outside the city. It represents the struggle of the municipality to secure dam sites from private enterprises. Within the city the Lake Union facilities became a symbol of the progressive power of City Light under J. D. Ross.

Throughout the 1920's, Ross and the Lighting Department battled directly with the so-called power trust of Stone and Webster (later Puget Power and Light) for additional customers within Seattle. In the 1924 Annual Report Ross described the bitter battle for control of power resources as having grave political consequences:

> "Domestic water and hydro-power, the two utilities that belong as a natural resource to the people are by their very nature a monopoly and can never be properly and economically handled except by a city or community itself. Because such (private trust) companies must monopolize a great natural resource, they necessarily become political and seek to hold by policies what other companies must hold my merit. Consequently they seek to control City and State governments in order that the grab may be easy and complete."

The opposing propaganda of the era included accusations of socialism and political corruption. Ross's success in establishing the pubic power agency can be demonstrated by the continual growth of the Lighting Department's hydro-generating facilities. His greatest personal triumph may have been in 1931. Due to the high costs of the Diablo facility and because of internal political rivalry he was fired by then Seattle mayor Frank Edwards. A recall campaign was immediately enjoined by Ross's supporters and within four months Edwards was removed and Ross reinstated. (The New York Times reported, "Mr Edwards is out, Mr. Ross is restored to utility control, the power trust has a flea in its ear; and the Moscow papers will have good story." Dreher, p.7.)

During the mayoral recall campaign Ross went east to meet with the then governor of New York, Franklin Roosevelt, for discussions over the St. Lawrence public-power project. The results of this meeting included a public power policy by the Democratic Party in the 1932 presidential campaign tha was to become a part of President Roosevelts New Deal Legislation.

In the late 1920s Ross began calling for coordination of all public and power resources in the Northwest, and an end to duplication by City Light and Puget Power and Light Company, within Seattle. As the administrator of the Lighting Department he continued public appeals to educate the citizens of Seattle about their city-owned utility, efforts that included the establishment of the Skagit Tours in 1928. Until that time the Lake Union Steam Plants may have served as the most visible reminder of public power. Electric rates of less than 2 cents per kw/hour in the late 1920s demonstrated the effectiveness of the City operated system.

Ross was appointed to the SEC to administer the Public Utility Holding Company Act in 1935, and as the first administrator of the Bonneville Power Administration in 1937. In many ways BPA was an organization of his own making, one that promoted the regulation of natural power resources with a publicly-managed regional network. As he had with the earliest plans for the Cedar River Plant, 35 years earlier, Ross began planning for another technical advancement in power distribution -- the linking through high voltage transmission lines of a national power network. At the national level Ross continued to work until his death in 1939 for the goal he conceived of in Seattle, "the union of the people in promoting the use of electricity."

The Architect

Daniel R. Huntington, the architect of the two Lake Union plants, was a prominent local designer during the first two decades of this century. Huntington's practice in Seattle paralleled that of "second generation" designers, such as Wilcox, Bebb and Carl Gould, whose work followed the early practitioners of the post-fire era, architects whose stylistic and technical skills bridged from 19th century classicism to the beginning of modernism in the Northwest.

Huntington, born in Newark, New Jersey in 1871, apparently gained his professional training through an apprenticeship rather than through a college education, by working for a Denver architect from 1889 to 1894. From 1894 to 1900 he was employed in New York City for architect W. Wheeler Smith. He returned to Denver and established the architectural firm of Fisher and Huntington from 1900 to 1904; the practice was known for its residential design, particularly for apartment buildings. In 1904 Huntington came to Seattle and joined architect James Schack in a partnership. Schack and Huntington are credited with the First United Methodist Church, constructed in 1907 at the corner of Fifth Avenue and Marion Street, a Beaux Arts structure modeled on Neoclassical, Palladian and Byzantine buildings.

Huntington's practice with Schack was apparently short-lived, but he went on to become the City Architect for Seattle, 1911 - 1925. Huntington's designs for the Lighting Department include the Lake Union Hydroelectric Plant, 1911 and remodeled in 1914, the three park Lake Union Steam Plant, constructed in 1914, 1918 and 1921, and the Warehouse and Shops (now the Park Department Shops) in 1925. Other pubic work credited to him during the teens and early twenties includes the Wallingford Police Station (now the Wallingford Public Library) in 1913, the Fremont Branch Carnegie Library in 1920, the Seattle Fire Department Station at Fourth Avenue and Battery Street in 1921, the Firlands Sanitarium and bridge piers at several early concrete bridges.

Huntington's private design practice included collaboration with Edward St. John Griffith, with whom he is credited as designing the Seventh Street Theatre in Hoquiam, and Carl Gould with whom he collaborated on the design of a Capitol Hill residence. Huntington's own work includes several apartment building, notably the Piedmont Apartment Hotel (a.k.a. Evangeline Women's Residence and recently the Tuscany Apartments) in 1927, the Seventh Church of Christ on Queen Ann Hill in 1922, and the D.A.R. Building on Capitol Hill in 1924. He continued to work with industrial buildings after his service to the city, specializing in designs for dairy buildings in West Seattle, Everett and Port Angeles. Although Huntington's interests did not apparently extend to high culture pursuits, he was one of the earliest members of the Washington Chapter of the A.I.A. and he served as its secretary, president and as a member of its executive board.

A review of Huntington's design work suggests a skill with a wide range of Neoclassical styles combined with an interest in building technology, particularly concrete construction, that was advanced for its time and place. In his designs for industrial structures such as the Lake Union Steam Plant, Huntington foretold of an architecture that was to become Modernism.

LAKE UNION POWER PLANT

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