

CHAPTER 4

Growth Despite Hard Times

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1930 – 1939

On October 24, 1929, an event occurred that would change the lives of people around the world for the next decade. On that day, so many people lost so much money on the New York Stock Exchange that the world economy was thrown into what is now known as the Great Depression. Despite this, Edmonton Light and Power and its market experienced growth for several subsequent years. In 1930, electricity use in Edmonton hit new highs: the average home consumed 600 kWh per year, double the amount used in 1910. Edmonton Light and Power had 20,073 customers, up from 19,400 the year before; electric lighting was a common feature in city businesses, public institutions, theatres, and restaurants. That year, plans were underway to introduce “white way” lighting to Edmonton’s business district, to brighten areas once lit by only one lamp per street corner. Ninety-eight additional streetlights were installed in the city’s core.

Electricity was being used for less practical purposes. In 1930, Edmonton’s Industrial Association recommended that “the city’s main streets should be given a festive appearance during the Christmas and New Year’s seasons.” How? Using coloured lights and brightly lit Christmas trees.

By 1931, Edmonton had a population of over 79,000. Goods that had once been available only in the East could now be purchased in Edmonton. Men could buy ready-made wool suits for \$15.75 at the Bond Clothes Shop, while three-piece wool outfits for women were \$7.95 at the Hudson’s Bay Company store. A 10 pound prime sirloin roast cost \$1.30; a pound of butter sold for \$0.24.

BELOW: Many new streetlights were installed along Jasper Avenue in 1930.



MILESTONES

1930

The RCMP begin policing Alberta as the provincial police are disbanded.

1931

The oldest section of the Rossdale Power Plant is demolished to make way for new equipment.

1932

Rossdale Power Plant sells 51,703,200 kWh to other City of Edmonton departments.

The price of wheat drops to \$0.38 a bushel. Prices were \$1.60 a bushel in 1929.

1933

Edmonton’s first traffic light is installed at Jasper Avenue and 101 Street.

1935

William Aberhart is elected premier of Alberta.

1937

On May 12, a streetcar is decorated with bunting and electric lights as part of Edmonton’s celebration of the coronation of King George VI.

Rossdale Power Plant sells 61,028,800 kWh to other City of Edmonton departments.

However, Alberta would not be exempt from the Great Depression for long. By 1932, over 40,000 Albertans worked on government relief projects. By 1933, at least one out of every five workers in Canada had lost their jobs to the economic downturn. Edmonton's power utility was faced with a set of problems it had never experienced before. Demand for power was waning; while it did not decrease, it grew at a much lower rate than had been customary. Despite this, Rosssdale struggled, and sometimes failed, to keep up with demands; much of its outdated machinery was working beyond capacity.

A NEW BOILER

Edmonton's City commissioners continued to plan for a \$2,000,000 expansion of Rosssdale, as recommended by Superintendent Cunningham in the 1920s. However, this plan would proceed at a

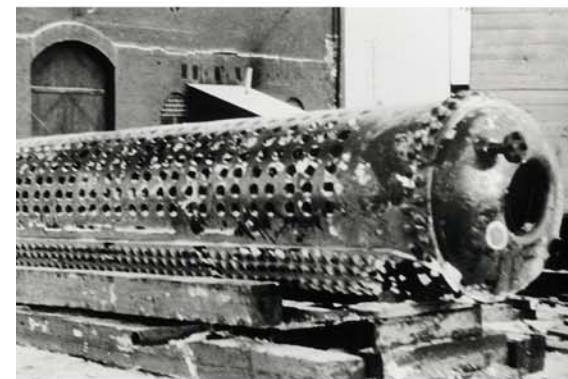
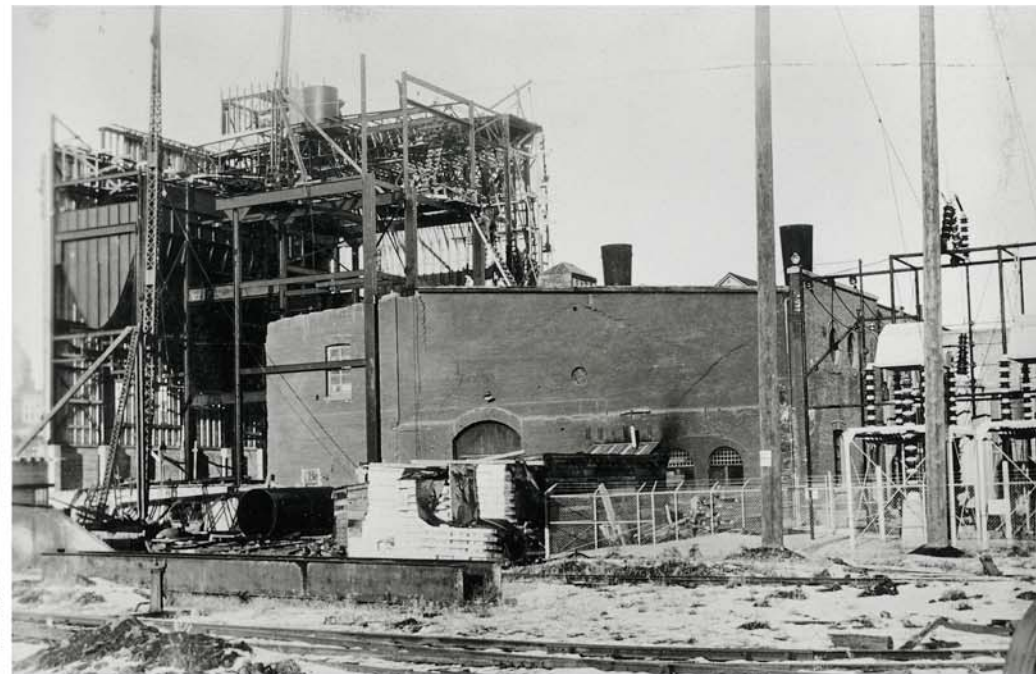
TOP: *The Rosssdale Power Plant as it appeared before demolition to make room for boiler number 2 began.*

MIDDLELEFT: *This dated stone, which was on the west wall of the power plant, is the only surviving remnant of the 1908 building.*

MIDDLE RIGHT: *Demolition of the old plant began in 1931.*

RIGHT: *Construction of the addition to Rosssdale in 1931.*

BELOW: *Number 2 boiler drum was among the new equipment installed in Rosssdale.*



RELIEF WORKERS

The Great Depression was a devastating time for the people of Alberta. The price of wheat was at its lowest point in history. Many farmers lost their farms to bank foreclosures. Grasshoppers and drought destroyed millions of acres of crops, sending family farms into ruin. Thousands of men and boys rode the rails in search of jobs.

In 1930, the federal government passed the Relief Act, which allowed unemployed workers to receive small amounts of financial assistance in exchange for work on public projects. “Relief workers” were paid as little as \$0.20 a day for doing hard physical

labour. In 1932, some of these relief workers helped renovate the Rossdale Power Plant to accommodate the massive boiler and stoker purchased by the City of Edmonton.

The jobless seemed to be everywhere. By 1932, over 40,000 Albertans were on relief. In the fall of that year, a crowd of 13,000 marched to the legislature in Edmonton to protest unemployment. The workers wanted jobs and free medical care; they wanted to present a list of such demands to the premier. Instead, they were beaten back by police. The protest had little immediate effect.

much slower rate than Cunningham had advised.

In 1931, Edmonton City Council approved an expenditure of \$450,000 for the purchase of new boiler equipment. This machinery was badly needed; as Cunningham stated in a report to council,

the boiler plant, which in 1914 was considered inadequate, so much so that a new plant was actually designed and contracts awarded, is now producing steam to handle a load more than two and a half times that of 1914.

The new boiler was installed and put into operation by 1932. It was accompanied by a twin stoker (the largest in Canada), and additional coal and ash-handling equipment. The south end of the power plant was renovated to accommodate the new equipment. However, no new turbines were purchased.

A CATCH-22

The terms of Edmonton’s agreement with Calgary Power were negotiated before the effects of the Depression were known. It came into effect on October 1, 1930, and lasted through five of the Depression’s worst years. Under the terms of the agreement, Calgary Power sold electricity to Edmonton during the summer, and Edmonton sold surplus power to Calgary Power during the low water season. Electricity was transmitted along a line installed between Calgary Power’s Ghost Plant on the Bow River and Edmonton’s Rossdale Power Plant. The deal was advantageous to Calgary Power because its hydro plant produced a surplus during the high water season. According to Power Plant Superintendent Cunningham, the deal allowed Edmonton to put off the purchase of expensive new equipment and proceed with expansion at a manageable pace. The Great Depression’s arrival soon

MILESTONES (continued)

1938

Clarke Stadium is opened. The 3,000-seat stadium is named after former mayor Joe Clarke.

The owners of Edmonton’s Capitol Theatre install the largest theatre marquee in the British Empire. The sign has 2,000 bulbs that can melt snow from the sidewalk below.

On February 11, Local 1007 of the International Brotherhood of Electrical Workers issues its charter. The Edmonton union has 82 members.

Number 1 pumphouse is completed along the river at the Rossdale Power Plant. This building has been preserved to this day.

Jewish people are attacked across Germany on the night of November 9. So many windows are shattered during the violence that the night becomes known as “Kristallnacht.”

1939

On September 10, Canada declares war on Germany. Recruitment of soldiers begins across Alberta.

Edmonton begins its first use of trolley buses on September 24.

Number 1 boiler, the largest stoker-fired boiler in Canada, is commissioned at Rossdale.

BELOW: *Life in the city: aboard an Edmonton streetcar in the 1930s.*

BOTTOM: *Vehicles like these were the pride of the Electric Light and Power department during the 1930s.*

made the Calgary Power agreement seem especially fortuitous.

The deal was not intended to replace Rossdale, but rather to supplement it. Even when electricity was flowing north

from the Ghost River plant, Rossdale remained in operation, albeit at a decreased capacity, to operate the water pumping and filtration plants. Rossdale also provided a ready backup in case of an outage on the transmission line. In the first two years of the agreement, Rossdale generated 44,779,800 kWh of electricity, while 56,479,800 kWh were purchased from Calgary Power.

The Calgary deal worked, on paper, to the benefit of both companies; but it assumed that demand for electricity would continue unabated. Unfortunately, demand fell along with the economy. Edmonton was not able to sell its power at the level expected. The pact between the two utilities no longer seemed as profitable as first predicted.

The agreement was due to terminate on October 1, 1935. As this date approached, the merits of the deal were debated in local media. Many participants in this debate felt that the agreement had cost Edmonton both money and jobs. Others knew that the agreement was necessary, regardless of the cost. Though Rossdale had for years made money for the City, relatively little had been reinvested in it. In a report dated February 1934, Power Plant Superintendent Cunningham placed the facts before City Council: the equipment at Rossdale was dangerously obsolete and barely adequate to maintain power to the city. If any piece of aging machinery broke down, the city would face power outages. Basing his estimates on conservative projections of a one percent annual growth in demand, Cunningham wrote “it is obvious that an addition to the plant is necessary if it is to function alone – considering even the lowest estimate of growth.”



WHOSE WIRE WAS IT?

March 24, 1930

A.G. Shute, Chief Constable
City Police Department

Re: Police Auto No 2 damaged

Sir,
About 8:50 AM this date I was driving Police Car in answer to a complaint of Mr. De Vall and was going North on 108 A. St. and when I came to CPR tracks I turned East on land between 87th and 88th Ave. (a good traveled road). The Sun was shining very strong on the windshield and I did not see a loose guy wire attached to a Electric Pole and the other end fastened to a hook close by the road.

The top of Auto hit this wire and almost broke it off also broke the windshield. The wire was across the road. I took Auto to No 2 Station and then to Civic Garage.

This wire is very dangerous to the persons who are driving cars on this road. And some person is liable to get hurt.

Later Inspector Robinson and I visited this place and he corroborates my statement. Inspector Robinson recommends that the Electric Dept. be notified to take this wire down and save further accidents.

Yours respectfully,
U. Walker

March 26, 1930

His Worship Mayor J.M. Douglas
Police Commissioner
Edmonton, Alta.

Sir:

I am enclosing herewith copy of report of Constable Walker covering damage done to the South Side Ford car.

The top of the car ... was completely broken off, and all the bows were broken. The uprights which support the windshield were badly bent, and the windshield was broken ... a new top ... will be required, and the uprights supporting the windshield will have to be straightened, the cost of repairing this damage being estimated at \$35.00.

The scene of this accident was checked up by the Deputy Chief Constable, and it appears that in the land East of 109th Street and running parallel with the CPR tracks are a number of telegraph poles. On the north side of the land where the accident occurred, one of the poles has a guy wire extending from part way up the pole to the south side of the lane, and there is just barely sufficient room for a car to pass under it. The lane is in poor condition between the guy wire and the post, ruts being very deep there, and it appears quite likely that Constable Walker, in endeavoring to avoid the ruts, struck the wire.

While there may have been a certain element of negligence in this particular case, it would appear that the sun, at the time or the morning when the accident occurred, was shining directly in the driver's eyes, and that the wire could not be seen. This wire is exceedingly dangerous ... at night time it would be quite impossible for the driver of a car to see it. I do not know to whom the telegraph post belongs, but I am forwarding a copy of this report to the City Engineer, as, on account of its dangerous location, this wire should be removed.

Your obedient servant,
A.G. Shute,
Chief Constable,
Edmonton Police Department

March 28, 1930

Mr. D. Mitchell
City Commissioner
City.

Re: Accident SouthSide Police Auto

Dear Sir:

With further reference to our conversation of recent date, re: damage occurring to Auto owned by the City Police in lane East of 109 Street between 87th and 88 Avenues, we beg to advise that upon investigation we find that this Guy wire is owned by the CPR Telegraph Company, and is not used by any of the City Departments.

We would suggest that before writing the CPR Co. on the subject that the Engineer's Department establish whether the present road in on the CPR right-of-way, or whether it is part of one of the City lanes. As this property is more or less in a wild state, it is impossible for the writer to state definitely whether this is CPR right-of-way, or City's lane.

Yours truly,
W. Barnhouse, Superintendent
Electric Light and Power Department

BELOW: *Many Albertans could not afford to operate automobiles in the 1930s. Bennett Buggies, car chassis converted to wagons, were not an uncommon sight by the middle of the decade.*



The City was now in a catch-22 situation. If the agreement with Calgary Power was not renewed, the city would be in an extremely vulnerable position. However, to many City of Edmonton managers, it seemed that the pact was no longer in Edmonton's best interests. The deal was costing the City more than some argued it was worth.

Cunningham proposed that the City continue the development program it had begun two years earlier with the purchase of the new boiler. The predicted cost of the new extension was roughly \$1,200,000. A few months after he presented these recommendations, Cunningham died suddenly of a massive stroke. Alex Ritchie, the new acting superintendent, was left to carry the ball for the Rossdale Power Plant.

A NEW PLAYER

Alex Ritchie had an impressive résumé. As an engineer, he had overseen many improvements to the Rossdale Power Plant between 1913 and 1927. He left Rossdale in 1927 to work as a research engineer with a local firm, but returned

in 1932 as chief construction engineer during the installation of number 2 boiler. In a January 28, 1927 letter to City Commissioner Mitchell, Superintendent Cunningham described Ritchie as a man who gave "himself loyally and whole-heartedly to the interests of the City." Ritchie is also credited with "securing operating economies, which have resulted in the saving of very considerable money [for] the City."

Unfortunately, Ritchie walked into a hornet's nest when he became acting superintendent. At the time, Edmonton's City commissioners and City Council were still struggling with the Calgary Power Agreement. Adding its voice to the debate was a lobby group known as the Edmonton Tax Research Bureau. The group placed submissions before City Council protesting the interconnection agreement. One of the flyers the group distributed proclaimed:

Taxpayers! Do Not Be Fooled. Based on investigations from every angle possible

BELOW: *This railway crane was used to move coal and ash at Rossdale.*

the old Calgary Power Agreement proved to be — Not an interchange agreement but a "short change" agreement. So why renew it?

The Edmonton Tax Bureau argued that Edmonton paid for its power twice under the Calgary Power agreement: one payment went to Calgary Power and the other to Edmonton Power's workers, who maintained Rossdale year-round. Ritchie disagreed with the Bureau's assessment. He argued that the agreement had saved Edmonton \$192,793 in the two-year period ending in 1932.

"FIGHTING JOE" ENTERS THE DEBATE

A new mayor was elected during this debate. "Fighting Joe Clarke," as he was popularly called, promptly criticized the work of Acting Superintendent Ritchie.

Like his predecessor, Ritchie estimated that a 20,000 kW extension to the Rossdale Power Plant would cost over \$1,000,000. City Council approved this expenditure in June 1935. However, Mayor Clarke publicly called Ritchie's estimate into question (along with his credentials), suggesting that \$600,000 would be more than enough to cover the cost of the plant expansion.

Clarke's scapegoating tactics did nothing to resolve the situation. Council decided against renewing the Calgary Power agreement, which allowed the City only one year to do a three-year job — updating Rossdale. Yet, no concrete action was taken to commence the update.

This situation caused great concern in Edmonton's business community. Canadian National Railways, one of the utility's largest customers, argued that





LEFT: *This substation, located at 104 Street and 83 Avenue, was destroyed by an explosion in 1936.*

any interruption of power would mean closing plants and laying off workers. Newspapers fuelled fears with headlines like “Sees Danger in Condition of Edmonton Power Plant.”

In March 1936, an explosion demolished a new automatic substation located at 104 Street and 83 Avenue, and fanned fears about the state of Edmonton’s electrical utility. The explosion was caused by a leaky transformer, and was unrelated to the functioning of the power plant. While the Rossdale Power Plant provided an emergency circuit to affected areas, power was not completely restored for a few days.

TOO LITTLE, TOO LATE

On April 13, 1936, only a few days after the connection with Calgary Power Ltd. was severed, the city called for tenders on a 15,000 kW turbo-generator for the Rossdale Power Plant. Newspaper reports noted that “commissioners have not yet determined how the costly extension will be financed.”

Then the inevitable occurred. On May

26, 1936, a blowout in a thick feeder cable leading from the main 10,000 kW turbine to the control room of the power plant resulted in the unit being out of commission for nearly two hours. Across the city, streetcars stopped, water service was cut off, and packing plants, dairies, flourmills, and grain companies stopped work. Power was eventually restored, but only for 24 hours – this was only the first of three breakdowns. On May 27, a second feeder cable broke and power was cut off for 25 minutes. Then, on May 28, trouble at the Rossdale Power Plant led to the third breakdown in three days.

Now Edmonton’s civic leaders were in the spotlight. Groups like the Canadian Manufacturers’ Association were asking the mayor to explain the power breakdowns. They also wanted to know what measures he was taking to ensure that the breakdowns weren’t repeated. City Council looked for someone to blame, and Alex Ritchie was singled out as the author of the utility’s troubles.

In August 1936, in a six to five vote

(with the mayor casting the deciding ballot), City Council ousted Alex Ritchie from his job as acting power plant superintendent. Edmonton newspaper editorials condemned what was clearly a political decision designed to deflect responsibility for the outages away from City Council.

Alex Ritchie may have found some consolation in the elections held a year later, which ousted Joe Clarke, his nemesis, from office. Around the same time, City Council backtracked and established a new agreement with Calgary Power Ltd. Now both utilities would provide each other with “standby” power for emergency use. The agreement was effective for one year, and could be terminated with a month’s notice.

A new superintendent, Robert G. Watson, was hired to replace Ritchie. Terry Stone, a former employee, remembers Watson as a tough-minded “dapper man with an Adolf Menjou moustache.”

WHAT TO DO WHEN THE LIGHTS GO OUT

Madame M. Dey of Madame Dey’s Beauty Parlour spoke about the impact of the power outage on May 27, 1936:

“I have been in business 12 years and never before have I been without power for such a long time. It is certainly fortunate that no one was being treated by our permanent wave machines when the power went off.”

From The Edmonton Journal, 1936

THE ROSSDALE POWER PLANT

The Rosedale Power Plant is a good example of the architectural design, style, and construction methods that were used in the late 1920s and 1930s. The building was constructed using some of the new products of the time, including metal decking, open web steel joists, steel-framed windows, and pre-cast concrete. The reinforced concrete foundations, structural steel framing system, and non-load bearing masonry walls met the unique design requirements for modern electrical power plants of the time.

The building is a good example of the use of shop-built steelwork and reflects the high level of consistency and precision associated with this construction method. This type of construction lent itself to expansion over the history of the building with

virtually no modification to the construction system or details.

Architect David Whiting describes the Rosedale Power Plant as having an excellent example of notable or rare architectural style. The plant reflects traditional elements of classical architectural design. Base, column and pediment are interpreted in the Rosedale design in a manner unique to the early 1900s.

Adapted from Historic Resource Impact Assessment, Rosedale Power Plant, by David Whiting, 1999

BELOW: *The Rosedale Power Plant as it appeared near the end of the 1930s. The structure that is visible in this photograph, with the exception of the coal-handling equipment attached to the building's exterior, remained standing in 2002. Note the railway tracks in the photograph foreground; rail cars were used to haul coal within reach of the loading crane, visible on the far left of the photograph.*



HOME ON THE RANGE

Free installation of electric ranges will be continued in Edmonton until the end of 1939, City Council decided Monday night after hearing a report from City commissioners on results of the first six-months operation of the plan designed to boost power sales.

In 1937, only eight electric ranges were installed in the city, but in 1938 the total was 27, 23 of which were purchased after the free installation plan was put into effect, the report said. "The electric light department is well satisfied with the result, and as the load is very largely off peak, there is a substantial profit accruing to the city," it added.

Under the plan the City contributes \$10 toward the cost of each installation and the manufacturer pays the rest, about \$20. In this way, retail merchants in the city are able to sell electric stoves at the old price with free installation.

From The Edmonton Journal, 1939

WORKING CONDITIONS

In the 1930s, industrial working conditions were much poorer than they are today. Terry Stone began to work at the Rosedale Power Plant in 1938 as an apprentice electrician. "It was a dungeon," says Stone. "We had to work in coal dust and dirt from bunkers above and the smell of coal gas. The ash pit was like something from the industrial revolution." Asbestos was still used as insulation on pipes, and Stone recalls flakes of the substance floating in the air inside the plant. One of his jobs was to clean and sweep out the switch room on

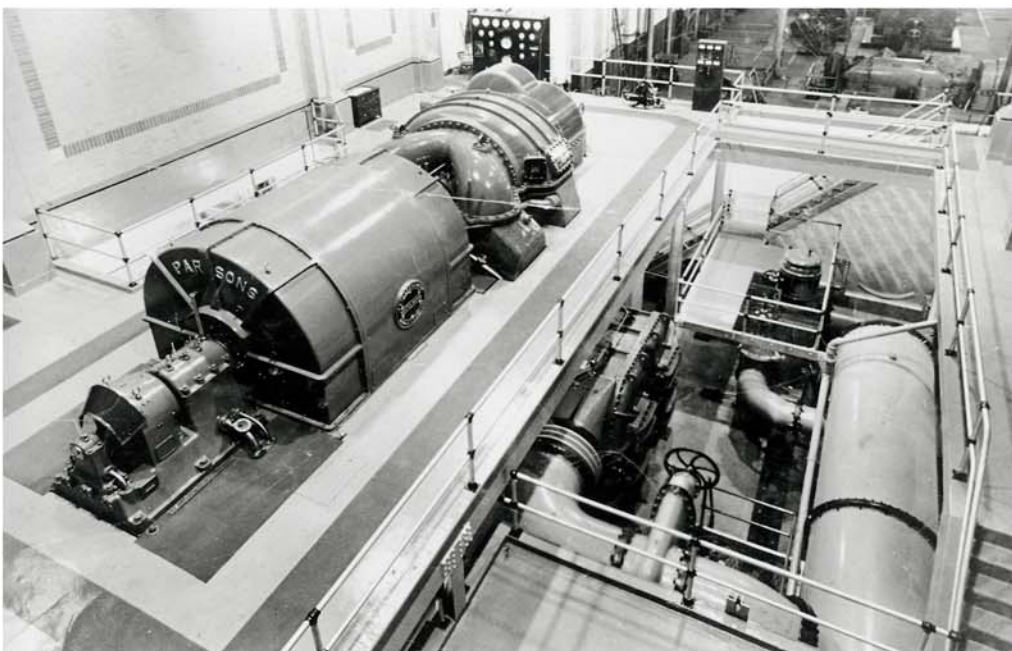


ABOVE: Utility bills flowed from this office (left) and were payable at the Civic Block (right).



LEFT: Parsons generator number 1 was installed at Rosedale in 1939. Chief Engineer Bill Darby watched as the low pressure boiler casing was lowered into place.

BOTTOM: The 15,000 kW generator as it appeared after installation.



Saturdays. “In the old switch rooms it was all open bus-bars,” says Stone, shaking his head. “It wasn’t until 1947 or 1948 that we got metal-clad switch gear.”

Despite technological advances, much of the work at the power plant in the 1930s still involved old-fashioned physical labour. “They used heavy lead-covered cables at that time,” says Stone. “It took a strong man to lift a six-foot length. We had to get a truck to pull the cables in.” Stone’s starting wage was \$0.33 cents an hour for a 44-hour week. “Just having a job during the Depression was good,” he says.

RECOVERY

By 1937, demand for power was again rising. Superintendent Watson reported an increase of 695,200 kWh for the first four months of the year, compared to the

METERS, METERS, METERS

In the 1930s, the Billing Section of the City of Edmonton was located in the Civic Block on 99 Street and 102 Avenue. The section employed eight meter readers and a bill delivery person. Another staff person took applications over the counter and was responsible for collecting a \$3 deposit for light and a \$3 deposit for water. Customers who brought the title of their property to the office weren't charged the water deposit. Businesses were charged a \$5 deposit for light.

Domestic customers could apply for a "combination rate." To qualify, the customer was required to have five electric appliances. It wasn't uncommon for many customers to borrow a toaster and iron from a neighbour to qualify!

Each customer account included a meter sheet. Staff used these to record meter numbers for both power and water, the class for calculating charges, the readings, consumption, and charges for the last twelve months. The sheets also included remarks from the meter reader about the location of meters, whether or not the customer owned a dog, and if the occupant was friendly or otherwise.

In a May 1935 letter, Superintendent Barnhouse of the Electric Light and Power Department responds to a request for a special meter reading:

From time to time requests are made by consumers asking that their meters be read on certain dates to suit their convenience. We are unable to accede to these requests owing to the extra cost,

and the resulting disarrangement to a predetermined schedule.

All meters are read on a definite schedule divided into 125 districts. Total meters read in January: Electric Light Department 21,466; Water 14,151 - an average of 1,148 meters per day at an average cost of 2.72 cents per meter. Of the total number of meters, only 149 are read out of the regular schedule. These special readings cost an average of 12.6 cents per meter, and cover the large industrial accounts, railways, government, and are read at the end of each month.

Requests for special readings make it very difficult for billing etc. For example, a reading taken several days before or after the regular schedule means the adding to, or deducting from the total amount charged to the district in question. Any additional expense is that of mailing all special readings and the extension of time allowed for discount, i.e., 99 consumers in a certain district, the discount may expire on the 10th day of the month, and one special on the 16th day of the month.

It will be seen from the foregoing explanation that such requests all tend to throw the schedule of reading, billing etc. out of step, and thereby increase the cost.

Sources: Billing Department Files, Letter from W. Barnhouse to D. Mitchell

same period in the previous year. With the Depression on the wane, the City finally took real steps to redevelop the power plant. By March 1939, a new \$215,000 Parsons 15,000 kW turbo-generator (number 1) had been installed in a renovated and expanded Rosedale Power Plant. A \$220,000 boiler (number 1) capable of generating 155,000 pounds of steam an hour – the largest in Canada at the time – was also purchased.

As the 1930s drew to a close, Edmonton's power plant seemed to once again be in excellent condition to meet the power needs of a growing city. In the coming decade, the utility would face a new challenge: not economic decline, but wartime demand.

"600" DESIGNATION SAID 'JUST SWANK'

What is the meaning of the "600" appearing on the front of the new electric light substation at 124 Street and 107 Ave?

It doesn't mean there are 600 such substations in Edmonton, Electric Light Supt. William Barnhouse said Friday, answering a question that has been puzzling inquisitive west-enders.

"It's just a designating number we use in the department, but there's no particular reason why we call it 600 rather than just six," Mr. Barnhouse said. There are only seven such substations in the city, he added.

From The Edmonton Journal, 1938