## Chapter 7

## Electricity Sparks the '60s

he babies born in the postwar glow of the late i940s came of age in the psychedelic I960s. Many rejected conventional careers and values. Long hair, kaftans, love beads, and sandals identified this new generation. Driven by values other than material success, they wanted to shape Canadian society in fresh and exciting ways. One of their many concerns was the environment.

In i964, Rachel Carson's controversial book Silent Spring was published. It focused on growing concerns about the environment and the effect of pesticides on wildlife. The book was a sign of the times - fewer people were willing to accept pollution as a necessary byproduct of industrial society. This was relevant to the Rossdale Power Plant, and Edmonton's electrical utility continued to find ways to reduce emissions.

Smog was not the only challenge facing the utility. The demand for electricity was expanding as a result of a booming economy, a growing population, and the utility's own promotional efforts. William Kirkland, superintendent of the power plant during the tumultuous i960s, helped the utility meet many of these challenges. He oversaw the expansion of the Rossdale Power Plant and advised City Council about the best approach to take in building a new power plant on the city's outskirts, to expand the generation of power beyond the sturdy brick walls of Rossdale.

## Demand Increases

Demand for power increased in the ig6os. Thanks to a post-war baby boom and an influx of people seeking work in the province's oil-fed industries, Edmonton's population reached 371,265 in

## Milestones

1960
An OFPT cable using aluminum (rather than copper) conductors links Rossdale to Woodcroft Substation.
This aluminum cable is the first of its kind to be used commercially in

North America.
Power rates for domestic electrical power are $\$ 0.04$ per kWh for 40 $\mathrm{kWh}, \$ 0.02$ for IIO kWh , and $\$ 0.015$ for 150 kWh or more. The average consumption per domestic customer is $2,950 \mathrm{kWh}$.

By year's end, there are 36,496 electric ranges and $\mathrm{I}, 586$ dryers in Edmonton.

I96I
Edmonton annexes the town of Beverly, extending the eastern boundary of the city to 34 Street.

I962
Edmonton celebrates its first Klondike Days.

Canada launches a scientific satellite and becomes the third country in the world to launch a satellite.

I963
Power lines distributing power to new residential areas are installed underground, following a new City policy.

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1964
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There are 88,565 meters in service in
Edmonton, and 28,425 electrical inspections are carried out.

## Advertising on Television <br> For CFRN TV

Who says the good old pioneer days are gone forever! Man is constantly searching new horizons for better ways to live.

Take electricity, for example ... now there's a field of great potential! Discovered ... yes ... but not exploited to the fullest extent. Yesterday - an unharnessed element of nature ... today - an energy we profit from both physically and economically. Look around your home ... you'll find the advantages in every room.

Electricity for light ... safe food storage ... meal preparation ... cleanliness ... daily household chores ... and many more conveniences. Some as-yet undiscovered ... scientific research is constantly exploring new ways to use electricity for an easier, more convenient way of life.
Your City of Edmonton Electrical System invites you to pioneer with progress ... LIVE BETTER - ELECTRICALLY.

## For CBXT TV

If you were forced to part with all but ONE electrical appliance ... which would you keep ... one of your kitchen appliances ... or one of your housekeeping appliances? It wouldn't be an easy decision, because you depend on ALL of them. Your City of Edmonton Electrical System invites you to LIVE BETTER ELECTRICALLY.

Audio portions of television commercials prepared by Nattall \& Maloney Ltd., advertising agency in the 1960s.


ABOVE, RIGHT: The City of Edmonton advertised the use of electrical appliances throughout the 1960s.

1965, up from 209,353 in 1955. But there weren't just more people to buy power; people were buying more electricity than ever before.
The City of Edmonton aggressively marketed the consumption of electricity. Electricity was a profitable commodity whose benefits were proclaimed on billboards emblazoned with the words "Live Better Electrically." This became a jingle that was broadcast on both television and radio. City-employed home economists advocated the use of electrical appliances.
These promotional efforts resulted in higher sales of electrical power. Between 1961 and 1969 , domestic consumption of electricity increased by 5.5 percent yearly. Power sold to City departments would also rise - from $363,387,600 \mathrm{kWh}$ in 1955 to $\mathrm{I}, 035,095,900 \mathrm{kWh}$ in 1965 . City residents weren't the only customers drawing on Rossdale. In the 1960s, Edmonton's electrical utility and


Calgary Power had an agreement whereby they paid fixed rates for emergency use of each other's generating facilities. Between I960 and 1971, Calgary requested emergency aid 68 times and Edmonton made 26 requests for assistance.

## Expansion

An expansion strategy involving both generation and distribution departments was developed to meet increasing demand. Rossdale was to be expanded once again. Plans were made to build an altogether new power plant. And four substations were built in the 1960s to deliver electricity to new suburban neighborhoods via buried distribution lines.

Between 1960 and 1966, three generating units were purchased. Each unit was comprised of a turbine and a boiler that operated at higher steam pressures than the machines in the Low Pressure Plant could. These high pressure units were labeled numbers 8,9 , and 10 . "Putting in number 8 was a real challenge," remembers George Faulder, a mechanical engineer at the plant between 1954 and 1966. "It was twice as big as the other units and operated at a higher pressure and temperature than the low pressure turbines."

According to Faulder, there were other challenges as well.

> In the Low Pressure Plant there were seven boilers in a row, feeding steam to a common header located at the rear of the boiler room. All the turbines took their steam from a common header. The consequence of that was that any boiler could supply steam to any turbine. In the
high pressure steam plant, one boiler supplied steam for one turbine.

To accommodate these large units, a west wing was added to the north end of the power plant. The High Pressure Plant was born. Its three turbines had a total generating capacity of $225,000 \mathrm{~kW}$. Each of the new turbines used less fuel per kWh generated than the turbines in the Low Pressure Plant. The Low Pressure Plant contained five turbines with a total generating capacity of $120,000 \mathrm{~kW}$.

## Environmental Concerns

When they were first installed in the 1950s, Rossdale's gas turbines seemed to be everything the City was looking for: their jet-engine technology offered quick-starting capability for peak loads. However, the limitations of this

BELOW: Exhaust plumes from the short stacks over Rossdale.


## Milestones

 (continued)I965
This year, $1,573,151$ electrical bills are produced.

## I966

Rossdale's generating capacity reaches 405 MW , up from 225 kW in 1902.

Ninety-five percent of Alberta's farms have electrical power.

## 1967

The stacks above Rossdale's High Pressure Plant are elevated about 30 m to better disperse gas. Devices are installed in the plant's gas turbine stacks to reduce the formation of nitrogen oxides in the flue gases.

Canada celebrates its Iooth birthday.
Workers installing a gas line near the
Rossdale Power Plant unearth ancient human remains.

Edmonton's Provincial Museum of Alberta opens.

Work begins on the Clover Bar Generating Station.

## I968

Ernest Manning retires from politics after 25 years.

## I969

This year, 1,923,900 electrical bills are produced.

Apollo II lands on the moon on July 20. The spacecraft begins its voyage home on July 24.

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## Sewers, Steers, and Vegetable Gardens

A shaft for Edmonton's deep sewer system was being dug at Borden Park. In June of 1960 , we were experiencing a heavy rainstorm that was to last three days. On the first day of rain, an accident happened in the sewer shaft at Borden Park. We were called out to provide temporary lighting in the shaft so doctors could perform emergency medical procedures. Upon arriving at the site, we found that the lighting was no longer required. We had a crew of eight linemen plus a truck driver and foreman. Our foreman decided we would take a tour of the north side of the city.

While traveling, us linemen rode in the back of the truck, in the "dog house." It was difficult to see outside, especially with the pouring rain. However, we were aware that the
truck was speeding up. We peered through the lone window into the cab and found that we were chasing a steer down a muddy street. This steer had apparently escaped from the stockyards; our foreman had evident ly decided that we should catch the animal. One of the crew decided he should lasso the steer. He took one of the ropes on the trick and made a lasso. He then stood on the back of the truck and prepared his throw. At this time another crewman decided to have a look; he was lassoed in error and nearly thrown off the truck. This was taking pace on the Rearson Estates, east of 82 Street, where the Yellowhead now exists. Many of the residents had two or three lots in which they grew vegetables. After avoiding the lasso, the steer decided to leave the street and stampede through
these vegetable gardens. We left the truck to chase down the steer ... until a lady, furious at the destruction of her garden, chased after us.

We broke off our pursuit and returned to the service centre, where we were met by the general foreman. He asked where we had been; our foreman replied that we had answered a call to Borden Park. The general foreman said that he had received a complaint about a City crew chasing a steer through a woman's garden north of Borden Park. He was puzzled: who could it have been? Our foreman suggested that it must have been a telephone crew. It was agreed that this was possible. The call was deferred. Management is none the wiser to this day.

From notes submitted by a utility lineman

## Inspector Safety

In the early 1960 s, Edmonton's power utility had a terrible safety record. So a safety supervisor was appointed; he created safety rules. Many had trouble adapting to these rules; one employee had particularly bad luck with them. In the course of one week, he walked through a pane of glass beside an open door and broke his nose; then, while walking off a trailer, he missed the trailer's steps and broke his arm and collar bone. This employee was in charge of enforcing safety for all field personnel! Today's safe environment was not achieved overnight!

As told to
Lyn McCullough

## The Life of a Lineman

It all began when Gary Paul went to an job interview. It was 1963 , and Paul was a lanky 19 -year old with slickedback hair, fresh out of high school and looking for a job. He responded to what he believed was a help-wanted ad for telephone workers (the telephone company was then City-owned). By the end of the interview, he was surprised to be offered a job as an apprentice lineman with the Electrical Distribution Department! Somehow, Paul had gotten his wires crossed and accidentally applied for work with the City's electric utility. Despite the surprise, he took the job and has never looked back.

Paul was fortunate to join the company when he did. In 1960, a new training scheme was developed by the utility in partnership with the provincial government's Apprenticeship Training Board. Electrical apprentices attended the Northern Alberta Institute of Technology (NAIT) as part of their training. "It was a four year apprenticeship," says Paul. "I worked in the field and spent eight weeks a year in the classroom studying theory and doing lab training."

Linemen-then as now-were called upon to install, repair, and maintain
power lines. The growth of new suburbs in the 1960s meant that this was demanding work. In 1963 , the year that Paul began work as a lineman, I,I33 rotted poles were replaced, and an additional 68 poles were replaced as a result of car accidents.


ABOVE: A lineman on a diving board.
Although Paul was stationed at the North Service Centre, he was sent out on jobs across the city, often in subzero weather. Those were the days when crews traveled in an unheated "dog house" perched on the box of a flat-nosed International Truck.
technology were becoming apparent in 1960, when nitrogen oxide, a potentially harmful product of combustion, seemed to be present in the exhaust of a turbine purchased in 1958. Mayor Roper maintained that the gas turbine produced emissions only when going "full out" to supply the emergency needs of Calgary Power. An unfortunate choice of words, considering that the gas turbines had
cost the City substantial tax dollars. "Have the taxpayers of Edmonton been saddled with a $\$ 1,500,000$ expenditure chiefly for the profit and convenience of the Calgary Power Company?" wondered editors at the Edmonton Journal. The troublesome turbine was eventually relegated to supplying power at emergency and peak periods only. The flame temperature in the turbine was also

Once a lineman was ready to start work on a line, he would strap steel spurs on his legs. He would shimmy up the pole by jamming the spurs into the wood and propelling himself upward. Once he reached the line, the lineman would lower a rope and haul up a "nose bag" full of equipment.
One of the most important items hauled up the pole was a "diving board." "We didn't have bucket trucks at that time," says Paul. "Diving boards were insulated planks that we chained to the poles and then stood on while we did work on the line." Other items included rubber line hose to slip over energized power lines.
The work could be uncomfortable and at times dangerous. Energized power lines have blown across Paul's feet. He has worked in temperatures so cold that sweat has frozen inside his thick rubber work gloves. But he wouldn't trade his job for any other. "I've worked with the best people I can imagine," he says. "This job has let me work in different parts of the city every day. It's never boring. I've been proud to be a part of this company."

With notes prepared by
Lyn McCullough
lowered, reducing the production of nitrogen oxide.

In 1964, new challenges arose. Now the emissions were coming from the silver stacks that towered above the new High Pressure wing. Staff at the generating station worked with the manufacturer of its turbines to find a way to burn fuel with fewer visible emissions. However, the problem

## Is There an Octopus in Your Home? <br> An offer to city residents

Some older homes don't have enough electrical outlets for all the appliances we use today. This deficiency tempts people to overload a single outlet with several two-way plugs and a jumble of cords and flexes. Result: an unsightly and very dangerous "octopus."

There's a better way to meet the demands of modern living ... use the City of Edmonton Residential Rewiring Plan to provide additional outlets ... to relocate existing outlets or to re-wire your home completely, ensuring high safety standards.

Here's how the plan works:
You call an electrical contractor and have him estimate the job. If the estimate is acceptable to you, then you and the contractor complete a threepart agreement with the City of Edmonton. After the work is done, the City pays the contractor in full. Any amount up to $\$ 300.00$ can be financed, with as long as 35 months to repay. The interest rate is low and monthly payments can be included in your electric service account. No down payment is necessary. Of course, you may pay off the whole amount sooner, if you wish. To "Live Better - Electrically" - make sure your home's wiring is adequate.

For further information about the residential rewriting plan, consult your electrical distribution system commercial section - main floor, city hall. Call 424-02 II.

From copy prepared for publication in Alberta Community Life Magazine in late 1963
persisted, and Alberta's health minister ordered the City to address its pollution problem by December 3 I, I966.

City Council commissioned a $\$ 20,000$ study to determine the composition of Rossdale's emissions. Joseph Lukacs, Dr. A. Rossano, and Dr. W. Oldham conduced 24 different tests from the roof of the generating plant. The results were not encouraging: the gas was being emitted at a rate of 90 to 200 parts per million. Safe concentrations ranged from 5 to 40 parts per million.

Meanwhile, City aldermen and Rossdale Superintendent Kirkland continued to argue that the pollution emerging from the stacks was quickly dispersed into the air and therefore posed no significant health threat. Consultants ultimately supported these arguments. City Council approved an extension of the exhaust stacks over Rossdale. The stacks over the Gas Turbine House were fitted with devices that helped to prevent the formation of nitrogen oxide.

BELOW: In 1963, distribution department workers demonstrated the dangers of electrical short circuits. Over 2,000 people attended the demonstrations.

## The Road to Clover Bar

Edmonton had experienced growth in almost every decade of its history. Therefore, it seemed reasonable to forecast that Edmonton's population and its power consumption would continue to increase. Expanding the Rossdale Power Plant wasn't the only way to address this growing need. A companion plant, burning either coal or gas, at an altogether new site, was a possible alternative.

The Genesee area, located about 80 km southwest of Edmonton, had been first considered as a generating site in the 1950s. This site remained attractive in the 1960s. Test drilling indicated that the coal beds contained $45,000,000$ tons of coal with a heating value of approximately 7,800 BTU per pound, roughly equivalent to 3.8 billion gallons of oil. In 1961, Power Plant Superintendent Kirkland advised Edmonton City Council that coal reserves in the Genesee area made building a $\mathrm{I}, 500$ MW coalfired plant possible and economical.

Not everything about Genesee (or expansion in general) was right, however. First, coal-fired generating plants were expensive. Second, Calgary


66 Candles to Kilowatts

In the I960s, motorists on Stony Plain Road may have had their attention momentarily diverted by a gleaming display of modern appliances in the glassed-in verandah of 650 Substation. The display was part of Edmonton Electrical Distribution Department's promotion strategy - a strategy designed to attract the attention of female consumers.

In the ig60s, women were seen as decision-makers when it came to choosing from the more than 80 different household appliances then on the market. In 1962, the Electrical Distribution Department hired Rose Faryna, a home economist, to give advice to "questioning housewives" about the economical and efficient use of household appliances. From an office and auditorium (used for demonstrations and courses), Faryna provided interested groups with "tips on cooking, menu planning, laundry, and home management."
The faded green scrapbook created by the home service department in the I960 contains clippings and photographs documenting Faryna's efforts, and those of her successors. It includes recipes for such dishes as "macaroni sauté" and "polka dot chili." Clippings chronicle cooking demonstrations with improbable new appliances such as an "infra red cooker." Thank you cards from 4-H clubs, schools, and women's groups and associations indicate that Faryna's efforts were welcomed and appreciated.

While the work of the home service department may seem dated now, at the time it was part of an overall effort

## Live Better Electrically

by Edmonton's Electrical Distribution
Department to not only increase demand for electricity, but to educate the public. The utility's home economists actively promoted safe residential wiring. And while few of us would need to be instructed in the careful use of electrical appliances today, in the i960s, many still needed Faryna's advice. Home economists would
continue to provide information to the public on behalf of Edmonton's electrical utilities until the late 1990 s.

BELOW: Modern electrical appliances were displayed in 650 Substation on Stony Plain Road.

BOTTOM: Rose Faryna, the Electrical Distribution Department's home economist, demonstrated appliances in this auditorium.


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## A Competitive Spirit

Competition was in the blood of many Edmonton Power employees in the i960s. "In the old days, they had a ball diamond at the North Service Centre," remembers Ron Donaldson, a former director of aerial distribution, now retired. Substation workers, meter readers, and waterworks employees formed teams and competed in tournaments.

Competition wasn't limited only to the ball field. In the 1960s, a small group of volunteers established one of Edmonton's most famous annual rivalries," says Walt Badowsky a former training supervisor.

We wanted something else to do, so one of us came up with the idea that we should get on the river and have a raft race. The plan at that time was to start in Devon. You'd go down there Friday night and build your raft from the wood on the river bank and launch this thing and have a race to Groat Bridge.

The entry fee for the first raft race was a bottle of whisky, with the winner taking all. In the first year of competition, the prize was 12 bottles.

Badowsky recalls many hijinks among the competitors in the early raft races. "A guy named Andy Watson was pretty involved in the race," he says. "[The night before the competition] a few guys took a roll of guy wire and anchored one end to a tree. They reeled the wire out and tied it to the bottom of Andy's raft. Then they buried the exposed wire under the sand." When the starting gun was sounded the next morning, competitors scrambled to get their rafts out onto the water. Unfortunately for Watson, his raft managed to move out only a few yards before the wire prevented it from going any farther. "Everyone was on the verge of falling off the raft and Andy just thought he had run into a sandbar."

After a few years, organizers began to open the race to other groups, such
as workers from Edmonton Telephones. By 1966 a core group of volunteers registered the "Sourdough Raft Race Association" under the Alberta Societies Act. The race became an official Klondike Days event. Themes were established for the races. Rafts became more elaborate. "We've had two person rafts, York boats, freighter rafts, and comedy floats," recalls Dave Walker, now director of systems development at EPCOR and a longtime volunteer with the race.

By the late ' 70 s, over 100,000 people lined the river valley to watch the annual race. In 1979, over 200 floats participated in the event. What had once been a fun way to spend a weekend for a few utility employees had become an Edmonton institution. It's still one of the premier events during the Edmonton festival season.

With notes prepared by Lyn McCullough


Power was planning new, competing ventures. It embarked on a major expansion of its Wabamun plant, and hoped to build a hydro-electric plant on the Brazeau River within two or three years.

The Alberta Power Commission, a body that regulated the development of electrical utilities in Alberta, recommended that Edmonton delay building

LEFT: Rossdale Central Control Room electrical board with John Simpson at the control board and John Hodgson in the foreground. The mimic board on the right was later moved to the North Service Centre.

68 Candles to Kilowatts

## City-Wide Black-Out

At about 3:00 AM on a cold February morning in 1969, technician Walt Badowsky was jarred awake by his ringing telephone. "It was Roy Fitzsimmons, the substation supervisor," says Badowsky. "He told me there was trouble on the system."
Fitzsimmons told Badowsky to get to the plant as quickly as he could. As a bleary-eyed Badowsky drove his truck down Io9 Street, he was struck by the almost mystical darkness blanketing the city. Reaching the top of Walterdale Hill, his impression changed to one of wonder. In front of him were Alberta's legislature buildings, blazing with light. The legislature, powered by its own electrical generator, looked like a fairy castle. The buildings were
covered in snow and bathed in a creamy yellow glow. A red clearance light shone from the tip of the dome like a cherry on a well-frosted cake.

After reaching the Rossdale Power Plant, Badowsky was immediately sent on to the Strathcona Substation, the source of the problem. The brick building was belching dark smoke into the cold night air. "The fire department was already there," says Badowsky. "They were spraying down the red hot switch gear. Steam was everywhere." That was bad.
Badowsky finally persuaded the firefighters to stop spraying the electrical switch gear. Rubber and insulation on all the cables were burning. The station was shut down by remote
control from the Rossdale Power Plant and the fire died down. A crew from the Distribution Department was left to clean up what remained of the Strathcona Substation.

The cause of the explosion was a deadly combination of water and electricity. Part of the substation had been under construction. Water from melting snow had dripped through an opening in the roof onto a circuit breaker. The resulting explosion had a ricochet affect, knocking out breakers at the Rossdale Power Plant. Power was off for one hour in some parts of the city and fourteen in others. "I'll never forget it," says Walt Badowsky.

From interviews conducted
by Debbie Culbertson
its Genesee plant and instead purchase power that it needed from Calgary Power. The power would come from Calgary's Wabamun plant, and eventually from the Brazeau development.

The Alberta Power Commission's recommendations did not sit well with the City. Mayor Elmer Roper declared that it was much cheaper for the City to produce its own power than to buy it from a privately-owned company. Some Edmonton aldermen also argued that taxpayers of Alberta were unfairly subsidizing Calgary Power, which received interest-free loans, while the City of Edmonton received no such assistance.

Power Commission Chair James G. MacGregor countered these arguments by stating that Edmonton's proposed
RIGHT: George Faulder, left, points out a steam jet air ejector on Rossdale number 8 steam turbine generator to a local journalist.
expansion would create an unnecessary and uneconomical duplication of services. "We want to get the three companies (Calgary Power, Canadian Utilities, and the City of Edmonton) to voluntarily look at this as if they were operated by one authority and as though they were one company," MacGregor told the

Edmonton Journal. MacGregor said he felt that the companies should consider forming an independent generating company that would sell power to all the distribution networks.

This debate raised fears that the City would not get approval for its plans unless it submitted them within a short


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## Oldest Curling Club

The Edmonton Power Curling Club is the oldest curling club of its kind ... in Edmonton. The club was originally organized late in the curling season of 1945, [but] only succeeded in playing four games [that year]. In the 1946 season, however, the club got into high gear, with four teams entered in the schedule.

Very little is known about the [club's] first three years as no records were kept. The backbone of the club at the time was Nobby Clark, who always managed to come up with fantastic first place prizes, such as used meter dials and "antique lamps." All were very original and very hard to find.
Some of the prominent members at the time were: Dave Raitt, who was well known for his knock out game; Jack Torrance, who always played a draw game; and Bill Allan, who is still an active member of the club after 25 years.

Edmonton Power curled originally at the Granite and was [the Granite's] first ice renter on a regular basis. The club then moved to the Thistle for three years and finally to the Shamrock.

The Sangamo Cup came into existence in the 1949 - 1950 season, and was presented to the first place rink
of that year. Skip S.L. Clark, Third, J. Torrance, Second, N. Christophers, and Lead, H. Kinloch.
Two other trophies were added in the 1967 - 1968 season. The 1007 IBEW (International Brotherhood of Electrical Workers) trophy for the "A Section" winners and the Union $5^{2}$ trophy for the "B Section" winners.
The skip whose name appears the most on the Sangamo trophy is Stan Hampton. Since he started dominating the winning circle it was obvious something had to be done. He was gently eased out of the Edmonton Power Department and up to the Commissioners Department.
Every skip's ambition to join the " 8 Ender" Club became a reality for Norm Simmons and his rink, Tom Luchka, Howard Walsh, and Bob McClary on February 4, 1967. They also won the league trophy in the same year. Their success obviously got the better of them; the next season they won the booby prize.
The end of the 1969 - 1970 season saw Sam McGregor's rink emerge as winner of the Sangamo League Trophy and the "A Section" trophy. From Watt's New, October 1970.
timeframe. Despite this, the City took its time in exploring all possible options. Over the next three years, Plant Superintendent Kirkland would fill a special filing cabinet with estimates on future power requirements and potential options for meeting the City's power needs. It seemed that the City was
inching towards the Genesee alternative: by 1965 , it had spent close to $\$ 250,000$ on surveys and research at Genesee. Hopes were high that Edmonton could build a $\$ 50,000,000$ power plant at Genesee by 1969 , with provisions for an additional $\$ 15,000,000$ expenditure on a later expansion.


ABOVE: Jim Curry, Wes Knutson, Pete
Tuchsen and, in the doorway, Rudy Delmar
overhaul turbine number 4at Rossdale in 1969.
Just as it seemed that the City was poised to move forward, a new proposal took the shine off the Genesee alternative. The Dynamic Power Corporation proposed that the City of Edmonton, Calgary Power, and Red Deer operate a thermal power plant on coal supplied by reserves at Ardley, 20 miles east of Red Deer. According to surveys, Ardley could produce twice the amount of coal needed for the economical operation of a generating station. Despite its initial promise, however, this proposal fell through when Calgary Power withdrew its support for the plant.

Initially, this power-sharing proposal seemed to offer the most economical solution. In a 1965 report, Power Plant Superintendent Kirkland recommended that the City consider building a power station adjacent to the Ardley coal field.

William Kirkland was a fixture at the Rossdale Power Plant for almost thirty years. After graduating from the University of Alberta with a degree in electrical engineering in 1937, he worked for Toronto Hydro for eight years. In 1945 he returned to Edmonton and began his career at the City's power and water treatment plant as a draftsman and junior engineer. Kirkland became superintendent of Rossdale in 1952.

Having worked his way up in the utility, Kirkland had a special appreciation for those who were beginning their careers at the plant. "Bill Kirkland was extremely conscientious, responsible, and concerned about people," says George Faulder. Faulder says that Kirkland put a lot of trust in the small group of young and inexperienced engineers that were working at

## William D. Kirkland

the plant in the I950s.
Others who knew him described Kirkland as a "hands-on" manager. During the search for a site for the new gas-fired plant, he wondered whether a site in the river valley flatland might be suitable. Henry Kasten, then a structural consultant with the utility, suggested that Kirkland take a look at the site himself. "It was mid-winter and the thought came to me that I had a snowmobile that could easily travel down the hill into the valley," recalls Kasten. "I suggested to Bill that I'd be pleased to take him on a reconnaissance trip on my snowmobile." Kirkland agreed to Kasten's offer.

On the appointed day, Kasten waited at the top of the hill with his snowmobile. When Kirkland arrived, Kasten was flabbergasted. "Bill had come straight from the office wearing
his dark blue business suit, overcoat, gray fedora, driving gloves, and black oxfords with toe rubbers," says Kasten. "I, on the other hand, was wearing a parka and mukluks." Kasten nervously drove the power chief down the hill, all the while having visions of "rolling my client into deep snow." Fortunately, they had a good run down the hill and Kirkland quickly determined that the available area was far too small to accommodate a modern power plant.

Kirkland would soon oversee the building of the new Clover Bar Generating Station. When the water plant and power plant were separated in 1970, he became the general manager of the newly formed "Edmonton Power," serving until his retirement in 1974. He died in 1985.

Sources: interviews and The Edmonton Journal, 1985


However, the City was now considering a gas-fired plant. Gas fired plants were less expensive at that time. The Alberta Power Commission was concerned that there were not adequate fuel supplies for a gas plant, but this concern was addressed by subsidies. Frank Battistella, manager of engineering at the time, recalls highlights of the debate over fuel. "A federal government income tax rebate on gas-fired power generation ... lowered operating costs." Finally, a gas-powered plant would be a better "fit" for the load patterns of the i960s. "The approximately 150 MW units in a gas-fired plant were more
LEFT: The North Service Centre was extend ed to house the Distribution Control Centre in the 1960s.

## Building Clover Bar

Following City Council's approval of a new gas-fired power plant, a site had to be determined and ... purchased. We looked at four possible sites and finally narrowed it down to Clover Bar. The land was owned by two older women who lived in the New York area. They were contacted and the land was purchased for approximately $\$ 125,000$.

The portion of the land next to the steep river bank was the remainder of a worked-out gravel pit. The land was reclaimed ... and the initial plant layout was drawn up. Tenders were sent out for the building construction, the boiler, the turbine generator, switchyard equipment, transformers, and all the other components needed to run the plant.

Construction began early in 1968 and the first $165,000 \mathrm{~kW}$ unit was commissioned in August 1970. The erection of equipment was carried out by Edmonton Power personnel, with the assistance of supervisory representatives of Canadian and foreign suppliers. Edmonton Power staff acted as general contractors for the project. The building contractors were Smith Brothers and Wilson and Forest Construction Limited. Kasten, Smith, and Eadie Ltd., assisted by Shawinegan Engineering Ltd., did the building design.

Frank Battistella was manager of engineering for Edmonton Generation, and later became production manager of

Edmonton Power. He retired in 1984.

## Bucket Trucks, Please!

The City of Edmonton greatly expanded its trolley bus system during the late 1950s and early 1960s. Trolley feeder lines were installed over dozens of city blocks and over uneven terrain around the river valley. The utility had no aerial lifts in those days; linemen used extension ladders to access the lines. We carried our three ladders over the total distance of the trolley line installation four times. Once on the ladder, we were relatively exposed to the hazards of electrocution. Can you imagine asking anyone to perform this today for $\$ 2.50$ an hour? I can't.

However, because of jobs like this, the utility started to consider aerial lifts. We graduated from ladders to squirt booms - telescopic booms that were insulated. This led to the purchase of the first double bucket insulated aerial truck in 1965. One
suited to the demands of the 1960s; a coal-fired unit would be more economically sized in the 300-400 MW range," says Battistella.

Despite the foot dragging, City Council approved the building of a new gas-fired generating station in January 1966, and the government gave its goahead to the project. The Clover Bar site on the east side of the city was chosen to be the building site. By January 1968 , the major pieces of equipment had been ordered, and in March of that same year, construction began on the plant.
such truck was purchased every year for the next few years. These units provided a much safer working environment for linemen; linemen could also be transported to work sites inside the trucks, where it was warm and dry. Today's personnel may take

these conveniences for granted, but in 1965 they were a great advance.

As told to
Lyn McCullough

As Canada entered its second century, Edmonton's electrical utility was an expanding utility with a growing infrastructure. It seemed that the utility was ready for any challenge. Few could have foreseen, however, the crisis that dominated the energy markets in the 1970s, when the price of gas rose dramatically and called the West's reliance on fossil fuels into question.

