

Chapter 8: A Decade of Difficulties and Perseverance

A war, crisis, wage freeze, fire, and litigation issue are just a few of the items that the Utilities had to contend with during the 1970s. In the midst of these difficult times, HUC gained another turbine, a propane-air peak shaving plant, hired a new general manager, and moved to a new location. Undoubtedly, this was the busiest decade for the Commission board yet; each passing year had at least one remarkable event take place. While the decade began on an extremely exciting note, the ending of these 10 years bore witness to many inquiries and challenges from the public sector. Regardless of questions surrounding its effectiveness at the conclusion of the decade, and all the other formidable hardships they faced, the men and women of the Utilities persevered during hard and sometimes troubling times.

HUC's Need for another Unit

An unparalleled purchase was needed to properly address the Utilities' energy concerns for the upcoming years. Tentatively, management had planned that they could wait to purchase additional equipment until 1975, but due to the anticipated power needs required by local industries, the Commissioners had to hasten. Presently, HUC had been buying power from RCPA; however, RCPA's supply had become increasingly tighter. Near the end of 1969, the Commission's plans were put into motion to acquire a new gas turbine, one larger than ever before. After the reception and careful



Expansion construction at the downtown plant.

consideration of seven bids from five companies for a gas turbine, the Commissioners settled on accepting the bid of General Electric (GE) Company's 15,000 kW combined cycle gas turbine unit in early 1970. While GE's bid was by far the highest, General Manager Young explained that a gas turbine should have a life expectancy of no less than 30 years.

Furthermore, the unit's lower fuel costs would offset the extra purchase price; it was found that the future cost of operation for the GE turbine over a period of 10 years actually made it the least expensive of all the bids.^{lxxiii} Current capacity of the plant was 20,780 kW; the GE unit would increase the capacity of the present equipment by a staggering 67 percent.^{lxxiv} With this colossal purchase, a new generator building was needed to house the unit. R.L. Vogt, Inc. of Olivia, Minnesota had the winning bid of \$185,670 and was hereby appointed the task of

erecting a building for the generator. Since the total estimated cost for the expansion amounted to the

stunning sum of \$2,942,657.75, the Commissioners once again had to sell \$2,000,000 of Revenue Bonds to provide the funds for the completion of contracts covering the addition to the building, a new well, pump, the GE unit, and engineering fees.^{lxxv} It went on-line in 1971 and quickly became the workhorse of the plant, running constantly as the other generators were activated during peak electric usage. While the Utilities started off the decade on a historical note, the country was riddled with economic problems.

President Nixon's Wage Freeze

Amidst a period of raging inflation, President Richard Nixon unleashed an action that was unprecedented. For 90 days, in the autumn of 1971, there was a federally imposed price and wage freeze. National economic conditions had worsened over the past decade; the inflation rate, which had been at 1.5 percent at the beginning of the 1960s, had ascended to 5 percent and unemployment levels rose from 3.5 to 5 percent.^{lxxvi} Hoping that this measure would successfully combat the growing inflation rates while easing the unemployment dilemma, all sectors of the country were forced into compliance, even Hutchinson Utilities.^{lxxvii} This measure caused a delay in the passage of the Commission's proposed new rate plans. Not once since the plant's inception of the Natural Gas division had there been a rate increase to Hutchinson consumers. Yet, for the past 11 years, Northern Natural Gas had occasionally opted to raise the rates to its municipal customers. Hence, a rate increase adjustment was deemed necessary by the Utilities' staff.^{lxxviii} While the increase was approved by the City Council, it had to be delayed by three months, in conjunction with the Presidential policy, resulting in a further loss of income for the Utilities. In addition, a couple employees were affected because they were scheduled to receive raises, which were also included in the national freeze.^{lxxix} Fortunately, the price controls were relaxed after the 90 days drew to a close.

RATE SCHEDULE	
<i>Adopted for Hutchinson Natural Gas Division</i>	
December, 1971	
RESIDENTIAL & SMALL COMMERCIAL (FIRM)	
Minimum Charge — \$1.75 per meter per month	
First	500 cu. ft. per month per MCF\$1.75
Next	1,500 cu. ft. per month per MCF 1.50
Next	3,000 cu. ft. per month per MCF 1.20
Next	5,000 cu. ft. per month per MCF 1.10
Next	40,000 cu. ft. per month per MCF98
Next	50,000 cu. ft. per month per MCF88
	Balance77
LARGE COMMERCIAL — A Firm Customer that has facilities (FIRM) which will use in excess of 200 MCF per month	
Minimum Charge — \$3.60 per meter per month	
First	3,000 cu. ft. per month per MCF\$1.20
Next	10,000 cu. ft. per month per MCF 1.10
Next	50,000 cu. ft. per month per MCF85
Next	100,000 cu. ft. per month per MCF75
	Balance68
SMALL INDUSTRIAL (Interruptible Service)	
Minimum Charge — \$2.00 per meter per month	
First	7,000 cu. ft. per month per MCF\$.60
Next	13,000 cu. ft. per month per MCF55
Next	30,000 cu. ft. per month per MCF52
Next	50,000 cu. ft. per month per MCF48
	Balance43
LARGE INDUSTRIAL (Interruptible Service)	
First	50,000 cu. ft. per month\$10.00
Next	450,000 cu. ft. per month per MCF45
	Balance42

Solution Found to Natural Gas Shortage

Natural gas was in short supply during the winter months of 1971 and 1972 while gas consumption was on the rise in town. The Utilities had a contract demand with Northern, which stipulated that if HUC went over the contracted amount, HUC would have to pay a significantly steep fee.^{lxxx} After a failed attempt to purchase more gas from Northern and to avoid future expensive

payments, the Commissioners requested Gas Superintendent Kuiken to investigate other, more affordable means of providing natural gas to customers. The ensuing project was spearheaded by Kuiken in which he first enlisted an engineering firm to secure information on the costs of building and maintaining a peak-shaving plant. It was found that many gas utilities and consumers could gain enhanced security and flexibility while reducing the overall costs of energy supply when they possessed such a plant.^{lxxxix} Basically, the peak-shaving plant would supplement the natural gas supply with propane gas. It was more cost-effective to peak-shave with propane and air pumped into the system to make up for the lack of natural gas than to pay the costly ramifications of going over their contracted amount, time and time again. Commissioners soon instructed management to contact an attorney to draw up the proper papers for a transaction of land adjoining the Border Station, located on the northern edge of town near Burns Manor.^{lxxxix} After accepting the winning bid submitted by Energy Systems, Inc. of Eden Prairie for \$136,300, construction of a propane-air gas plant began.^{lxxxix} While concerns about gas supply were assuaged, the costly addition of machinery exacerbated the Utilities' fiscal concerns. Some sort of action was needed to defray these high costs.

HUC Seeks a Rate Increase

A common complaint lodged against Utilities and other providers of services rendered to the public have been the supposed arbitrary increases in rates charged to customers. Often deemed too high or occurring too often, rates were and are often contested and this was the case for Hutchinson Utilities in the spring of 1973. General Manager Wacker reasoned that even though the Utilities had added more efficient equipment, such as the GM turbine unit and peak-shaving plant, this efficiency had not deterred the rising and volatile costs of fuel. Inescapable, the problem needed to be addressed and HUC personnel thought it was best amended through passing a proposed 10.6 percent increase in electric and gas utility rates; despite this recommended upsurge in rates, those charged by Northern States Power Company were much greater. Raising rates were not a common fixture in the Utilities' history and were only used as a last-resort option. While the City Council "balked" at the proposition, Utilities President Howard P. Quade, explained in a letter that it was vital to insure adequate revenue to cover the costs of plant operation and maintenance, have a surplus fund for replacements, provide for customary improvements, and to share a portion of the net income to the City in lieu of taxes. Quade had an arsenal of reasons to support the Utilities' position; he stated that numerous factors were currently inhibiting the proper profit margins for the Utilities. Among these rationales were the increased cost of fuel oil, which raised 21 percent in four years, in a span of five years the cost of natural gas had swelled by 43 percent, a 20 percent spike in the cost of materials had occurred for both the natural gas and electric divisions, there was a steady decrease in gross revenue for electricity and natural gas by at least 1.5 percent, and lastly the growth of Hutchinson surpassed the national average of 10 percent that in turn meant a perpetually increasing demand for the Utilities' services.^{lxxxix} In conclusion, Wacker recited the fact that the last electric rate change had occurred in 1953 when a modest surcharge was put into effect. Suppliers, such as Northern, indicated that there would be approximately a 10 percent increase per year in fuel cost for the indefinite future. The fickle, increasing price of fuel coupled with the time-consuming process of passing cost modifications (known as rate changes) greatly affected the cash flow of HUC. Needing to find a resolution to this predicament, the

Utilities found their answer in computing a fuel cost adjustment figure. Through this adjustment calculation, the Commission was able to modify the power fuel costs. It was a much more flexible method of calculating costs. The adjustment was based upon the cost of fuel or electricity used in the generating plant or the border station. While the energy price roller coaster necessitated this HUC solution, the overall objective of the Utilities remained the same: to furnish electricity and natural gas at the lowest possible price to consumers. All rate changes were still subjected to the City Council's approval. Through the persuasive efforts of the Utilities Commission and its management, the City Council members conceded and approved Wacker's rate increase. An updated version of the computation, with the implementation of a power cost adjustment clause and the fuel cost adjustment clause, exists today. With one financial success behind them, the Utilities faced another quandary dealing with the shrinking supply of fuel.

Conservation is Encouraged

Energy and fuel shortage woes plagued the year of 1973. HUC was the recipient of some disheartening news when they were informed that a major fuel supplier had cut supply by 25 percent. While this information was unfortunate, it did not disconcert the Utilities. Fortunately, because of management and the Commission's strategic planning, the possession of the GM turbine unit, and peak-shaving plant prevented the Utilities and its customers from feeling more of an energy pinch. However, Utilities' management felt that the public could get involved through helping avert another potential cutback in supply through conservation efforts.^{lxxxv} Utilities' customers, both large and small, were advised to try to conserve their use of heat and electricity. Long before it was fashionable to conserve energy, HUC had an ad published in the Leader that provided tips on how to save power. Some solutions given were to insulate exterior walls, install storm windows and doors, change heating filters, and turn off unused lights; all of these items are still viable and useful ideas for today. After accounting for each seemingly small act, the totality of rate payers' conservation actions proved that energy preservation could make a substantial difference.

A Record in Production

Between intermittent periods of energy dearths, the Utilities broke yet another record in production. A new peak load demand was attained during the hot month of August, when production reached 23,500 kilowatts per hour (kWh), up from the record previously set during the prior summer with a production of 21,900 kWh. This was a 7.4 percent increase.^{lxxxvi} Because HUC had garnered a reputation for its efficiency and had acquired new equipment, they had no problem in keeping up with the demand. The Utilities were even able to help offset potential shortages in other areas by supplying power to the United Power Association, which then supplied it to the Northern States Power Company through a "power pool" in the state. Despite their success, management still reiterated the message for public and private energy conservation in hopes that the advice would resound in customers' ears.

The Oil Embargo of 1973

The hiccup in energy supply for HUC preceded an international oil crisis, which transcended borders and affected nations dependent on the continual supply of oil. Members of the Organization of Arab Petroleum Exporting Countries (better known as OAPEC), suppliers of crude oil, made an announcement in October of 1973 that they were abstaining from the shipment of oil to countries that had supported Israel in the Yom Kippur War.^{lxxxvii} This oil embargo was mainly aimed at the United States, whose relationship with the Middle East had become precarious after America resupplied Israel's military forces with weapons and arms. Exacerbating the problem, a different aggregation of nations known as the Organization of the Petroleum Exporting Countries (OPEC) started to wield their powers and raised the price for oil by 70 percent, which caused the price of a single barrel to soar to \$5.11 per barrel that in turn, wreaked havoc on industrialized nations. Many countries, including the United States, had come to rely on OPEC as their principal supplier.^{lxxxviii} Much to the chagrin of utilities all across the country, energy shortages began to proliferate. A plethora of vehicles sat idle in garages while long lines of commuters enveloped gas stations; images of abandoned highways permeated the country's newspapers. In spite of this abysmal hardship, HUC remained unflappable. The Commissioners were able to turn to UPA for extra allocation of power if needed because UPA's power was primarily generated from coal. In wake of the national fuel shortage, the City Council authorized a cutback of downtown street lighting and floodlights by the dam, especially during the holiday season. Even before a Presidential address about a national energy program was aired on television, there were visible efforts by the local government, industries, and citizens alike to conserve energy by lowering their thermostats and cutting back on the usage of electricity. 3M alone had a goal to reduce fuel usage by 10 to 15 percent. The Utilities did not face a severe crisis due to a wonderful partnership between the Utilities, the City Council, and the cooperation of citizens and companies. This triumph over adversity could be attributed to the stellar planning of the Utilities' employees. General Manager Wacker proclaimed that, "We're in better shape (for power and natural gas) than many communities because of past moves by the Commission, such as the peak shaving plant, but we should still take steps to conserve what we do have".^{lxxxix} Fortunately, the embargo was lifted in the spring of 1974 and the Utilities emerged from the turmoil unscathed.



The situation for gas and its minimal supply grew dire. This is just one image that captures the severity of OPEC's actions and the detrimental affect it had on the nation. Image courtesy of <http://mentalfloss.cachefly.net>

HUC Peak-shaves for another

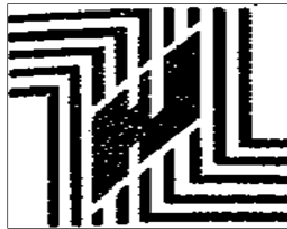
In the aftermath of the oil crisis, the Utilities sought to stave off further vulnerability to the whims of OPEC and Northern's recurrent rate increases. HUC evaluated different measures to help ensure they could accomplish an optimization of gas usage. Some preliminary ideas surfaced at the end of 1973 regarding entering into a natural gas agreement with the community of Circle Pines, MN. Circle Pines had also been paying higher penalty fees to Northern for numerous years. Mutually, the two parties desired to make more efficient use of their natural gas purchases. Both entities would purchase natural gas under a group billing; it was a maneuver to save substantial amounts of money for both towns. Each city's demand peak were at different times; this was advantageous because it prevented either community from having to buy extra gas during its peak periods, thus eradicating the paying of higher rates that Northern would impose during peak gas usage.^{xc} HUC was allowed to use natural gas from Circle Pines in the Utilities' generating plant during the summer while, in return, the Utilities would peak-shave for Circle Pines during the winter months and allow them to purchase any residual amount of gas. This arrangement evolved into a joint-agreement that was signed into existence on April 2, 1974. It also gave birth to the Circle-Hutch Utility Board which was responsible for everyday operations. By entering into this arrangement, the Board was empowered to make more efficient use of their natural gas purchases. Offsetting another financial pinch through embarking on a relationship with Circle Pines allowed HUC to soften the blow of future rate spikes to Hutchinson's energy consumers.

The Big Move

After some trying months the Utilities were on the move, literally. HUC purchased over 31 acres of land and an 18,400 square foot building in Hutchinson's Industrial Park that was to be transformed into their new office quarters and gas/electric warehouse facilities for \$225,000. Relocating to Michigan Street was a tactical and pragmatic move to insure that HUC had land aplenty for future expansion. Management felt that additional electric generation should not be located at the present power plant location (newly minted Plant 1) since the building had already been the site of multiple expansions and land for future improvements was becoming increasingly scarce downtown. While Plant 1 would remain at its present location, the main office, truck parking, material storage, meter test and test repair shop, electrical and gas maintenance and distribution crews, engineers, customer services, and bill payments were all going to be housed on the same piece of property at 225 Michigan Street. Prior to this, the main offices were located on Main Street, Plant 1 was at the juncture of Highway 7 and 15, and other equipment were scattered across the city; inevitably, communication problems had become prevalent between the various departments as a result of their separate addresses. Equipped with both a drive-through and lobby, the Commissioners felt that the newfangled office building would not only make the Utilities more accessible and efficient, but that it would actually promote a better experience for customers.^{xc} Even more so, this move alleviated the stresses that had plagued workers and planners when they tried to determine where additional electric generation would need to be erected at Plant 1; the environmental and accessibility quandaries posed by attempting to build in residential and public areas were abolished when the men and women of the Utilities moved into their new home.

HUC Gets a Loop Line System

The motif of growth was continued during 1975 when the Utilities made forays into procuring a cheap and economical solution to their energy dilemma. Once again, the city was undergoing another growth spurt. HUC needed to find a more modern voltage that would adequately and reliably deliver energy to residential and industrial customers alike. Possessing a 4.16 kV system that had been at capacity for quite some time, HUC needed to expand its distribution system to encompass the rising load growth. Fortunately, the electrical department found its solution, a 13.8 kV loop line system. A loop is a big circle of heavy conductor (wire) that can be tapped in several areas.^{xcii} Consisting of a north and south loop, the lines tied the two sides of town together through the installation of large, underground conductors. HUC personnel now had the ability to energize distribution feeders (also known as loops) from different directions if there was ever an underground wire fault.^{xciii} These loops were installed to serve two functions, one, to move large blocks of energy during abnormal conditions and two, delivering energy to large customers.^{xciv} Construction was divided into four phases, with the entire project concluding in five to six years.^{xcv} Since the loop line's inception, the two main loops have been incorporated into several smaller feeders but still have the ability to tie together from several directions. Currently, there are a total of 19 loop lines in Hutchinson.



Hutchinson Utilities' logo, circa 1976.

A Relationship with Curtiss-Wright Begins

Relocating to the Industrial Park allowed the Utilities to once again enter the market to purchase another turbine that would hopefully satisfy the unremitting energy cravings of its customers. After the bidding process was over, the Utilities agreed to purchase a 22,080 kW turbine unit from Curtiss-Wright Company (C-W), with a Rolls Royce Olympus generator, for \$2,839,778.^{xcvi} Presently, the Utilities had 32,000 kW of base load dual fuel (oil and gas) electrical generating equipment, which consisted of diesels and the industrial GE unit. With the acquisition of the new unit, potential total generation of the plant was bolstered to a staggering 52,000 kW. Not only did the expansion meet future projected needs of the community, it also included a proposed increase to the load growth and a 15 percent generation reserve; leaving the Utilities with a generation surplus capacity of 14,000 kW.^{xcvii} Another motive for the installation of a combustion turbine electrical generating unit was to serve the needs of the newly expanded United Power Association; the Rural Cooperative Power Association and UPA merged in 1972. With power exchanging hands between the two associations, UPA resumed RCPA's role in the Interchange Agreement of 1965 with HUC. UPA's load projections indicated that they would have insufficient generation reserves by June of 1977, which would have badly hampered the company's supply of energy to other utilities. They turned to the Utilities in hopes that they could purchase HUC's

excess kilowatts. Fortunately, HUC planned to have its unit operational by the summer of 1977. Because HUC held a selling status and UPA was in a purchasing position, the two parties amended part of the Interchange Service Agreement on February 20, 1976, which they signed originally in 1965. Hence, the energy abundance led to UPA agreeing to purchase the #9 unit capacity until demand in Hutchinson climbed so high that it needed to be used locally. The C-W purchase coalesced with the present distribution loop system improvement program precluded the necessity of any additional expensive distribution expenditures.^{xcviii}

The ravenous hunger of the Utilities' consumers subsided with this recent purchase, yet HUC's relations with Curtiss-Wright were about to unravel quickly. Complications with the C-W turbine began to surface in June of 1977, just within months of when the turbine went on-line; the C-W unit known as unit #9 started to have problems with its oil consumption and also had a vibration issue.^{xcix} Fortunately, the dilemma seemed to dissolve by November following proper actions taken by Utilities' workers.^c Both issues remained under observation. A few weeks came and went when the unit failed. Due to the severity of the damage, HUC had to discuss with UPA about the best course of action to take. Since UPA depended on unit #9's supplemental supply of power for the upcoming winter and it was imperative to maintain a steady source of electricity, all parties were in favor of having a complete and permanent repair initiated rather than having Curtiss-Wright render a temporary fix. General Manager Rufus Alexander (he was hired on September 1, 1976) was instructed to implore Curtiss-Wright to insure that a permanent repair could be completed in the shortest time possible.^{ci} To HUC's dismay, a representative from C-W declared that they were unable to conduct the repairs immediately because of a pending strike within the company. While at a Commissioners' meeting, a representative confirmed that it was impossible to commence work before April of 1978, which was a waiting period of at least four months.^{cii} Later, that date was further postponed when C-W estimated that the unit would be back on-line during August. An emergency generator was installed in July to inhibit further complications. Unit #9 was out of service for a considerable amount of time during the rest of the year because of warranty work that had to be done in order to replace the defective vibration component. Due to this string of incidents with C-W, the Utilities was strongly advised by engineers at Associated Consultants to opt for an extended 12 month warranty on the C-W turbine; the Commissioners followed the advice.^{ciii} Unbeknownst to the Utilities was that this would not be that last stressful dalliance with the Curtiss-Wright Company.

Trouble at the Downtown Plant

One of the most trying, albeit unforgettable, episodes in the Utilities' history came to pass just after the New Year. On a typical Wednesday morning in January, with temperatures hovering at 10 degrees below zero, flames suddenly engulfed the switchgear building, adjacent to the downtown plant. While the fire devoured rubber-coated wiring in the structure, black smoke permeated the sky. Within minutes, a pall of darkness and silence enveloped the city, as lights went out and furnaces became still. The ensuing hours and days surrounding the fire of January 10, 1979 tested the resiliency of the Utilities' workers and management; it took all the guile and hard work that these men and women could muster. General Manager Alexander traced the source of the fire to troubles with an underground cable at the

intersection of 5th Street and Lynn Road. As Utilities men were preparing to repair said cable, the automatic switch did not open, which consequently overheated and set the insulation of the wiring on fire.^{civ} Providentially, neither the high-voltage transformer station nor the 360 million gallons of oil in tanks situated near the switchgear building were damaged. Yet, the fire had a domino effect on the community: it destroyed the switchgear building, triggered a city-wide power outage, and caused malfunctions in emergency power supplies. While the outage lasted for about an hour throughout the entire town, its effects lingered through the next afternoon in the northeast part of the city. At the outset, the blackout ironically prevented the fire alarms to hark all volunteer firemen to the scene. As soon as the firefighters arrived, they dispensed chemical foam, provided by 3M, to successfully combat the fire.^{cv} All the while, Utilities workers were working at a feverish pace trying to remedy the problem while being subjected to temperatures plunging to minus 20 degrees. This was only to be the beginning of the Utilities' troubles.

The aftermath of the fire and blackout served as a terrific testimony to the quality of not only HUC's workers and services, but to the amazing aid provided by companies both near and far. Within two days of the fire, help poured in from all around the state and country. Two technicians from the Harold Scholz Company, based in Omaha, Nebraska, installed temporary breaker equipment while crewmen from United Power Association (UPA) assisted in restoring and providing electric service to the community by the morning of January 11.^{cvi} These men hailed from Cambridge, Princeton, Mora, and Grand Rapids. Due to the overwhelming influx of assistance offers, HUC had to decline many utilities' offers. When asked how the workers responded to the situation, General Manager Alexander beamed, "There's not enough I can say about our own boys here and the UPA."^{cvi} Power being generated at both power plants in Hutchinson resumed, but almost 50 percent of energy being used was bought from UPA. In reaction to the current circumstances, General Manager Alexander implored the public to practice conservation in hopes that the strain on the supply of energy would be assuaged.

In the Fire's Wake

Immediately, the Commission sought to restore the switchgear building in the most expedient manner through replacing the marred equipment. Only three breakers were temporarily operating outside of the fire-damaged building following the discovery that 11 breakers had been lost to the flames. After scouring the country for breakers, HUC accepted an offer from the Harold Scholz Company to install six breakers (large switches) in cubicles, plus an additional breaker for \$129,000. Delivery of these items was expected to take four weeks. The company also offered to furnish six more breakers in the remaining half of the building for \$114,000. Each of the breakers weighed in at a massive 1,400 pounds and took six months to build. Through an act of serendipity, some breakers were already being manufactured by General Electric for a municipal plant in Nebraska; auspiciously, the town had a contract with the Scholz firm. Due to this connection, the officials of Blair were benevolent enough to release the equipment for installation in Hutchinson. Expressing gratitude, General Manager Alexander proclaimed, "We're so very, very fortunate". It was good fortune because as a common practice, no companies carried breakers in stock; instead, breakers were built upon receiving an order and required at a minimum, six months to manufacture. As part of a new effort to eliminate any further possibilities

of fire at the site, the Utilities coordinated to have a fire wall installed between the two groupings of breakers.^{cvi} While originally priced at \$225,000 when the switchgear building was first built in 1967, it was going to cost at least \$18,000 more to refurbish the site and bring it back to a proper condition.

A Change in Public Opinion

Throughout the beginning of the ordeal, the Utilities' customers were supportive and understanding that HUC had not been negligent and that the fire had purely been an accident.^{cix} The tide of emotions began to sway when angst began to surface in the town following attempts to synchronize the production system, which caused a barrage of power outages throughout the town in the weeks following the blackout. Repairs were made, new equipment was installed, and a breaker arrived to get a generating unit in the downtown plant (plant 1) running. When changes were made, power was cut. Yet, these isolated incidents were perceived among some city residents as not only annoyances but saw it as a poor reflection in the efficacy of the Utilities. Less than a month after the first blackout, another longer blackout supervened; six hours of darkness descended on the south and southwest parts of town following a re-closure of equipment that had been serviced by three Utilities' workers. Unfortunately, while the men were working, things went terribly awry when the equipment malfunctioned, thus injuring the three employees.^{cx} The culmination of these events turned some citizens' angst into a dark cloud of public doubt that shrouded parts of the community.

After a multitude of rumors had circulated around Hutchinson in regards to not only the handling of the fire crisis but also the reliability of electrical service, the City Council felt compelled to fulfill its public duty and confront the Utilities. In a letter addressed to the Commission, the Council men aired the city's grievances. Its contents first expressed thanks to those individuals who had been involved in extinguishing the fire and restoring electrical service in the frigid weather. Then, the letter asked the Commissioners to carry out an investigation, preferably by qualified outside personnel, to determine what caused the recent problems, evaluate the current design of the overall electric system and the maintenance of its equipment, and to judge the Utilities' performance during the crisis. While the authors of the note conceded that this was an unusual request, they believed that this would be the best way to calm the fears and quiet the rumors circulating throughout Hutchinson. The Utilities Commission responded verbally to the letter's suggestions at its regular meeting. General Manager Alexander stated that investigations into the fire and its cause began immediately on January 10 and continued throughout the next few days by local personnel, who were aided by outside firms. Engineers from three different companies were on the scene soon after the fire; they were: Associated Consultants of Minneapolis, an engineering firm that specialized in utility work; Harold Scholz Company of Omaha, Nebraska; and United Power Association of Elk River. Alexander also immediately consulted General Electric, manufacturer of the equipment destroyed, over the telephone. After the three Utilities workers were injured, an inspector from the Occupational Safety and Health Administration (OSHA) came to investigate the incident and the Utilities' equipment. All companies were in agreement after a total of six investigations had been conducted. Declaring that all malfunctions of equipment had been mechanical, Alexander asserted that, "None of it has been because of human error." He went further to cite that GE had made a routine inspection of all equipment in both switchgear buildings just a mere

seven months prior and reported everything was working in a satisfactory condition. Alas, it was inexplicable to GE as to why the breakers did not open nor why an insulator would give way. Citing outages in other localities, General Manager Alexander deduced that HUC's recent outages were minimal compared to these other utilities.^{cxix} Utilities' management compiled a list of outage occurrences in the Utilities' history to further prove their impressive record of service; the list revealed that the last total blackout was in 1957 or 1958 and since then there had only been five outages during the 1970s. Through presenting such facts as these, HUC was able to debunk myths, such as the supposed fledgling state of reliability that the Utilities had to offer, through reasserting the fact that the dependability of the company had only momentarily wavered and would remain steadfast into the future. In summary, the Utilities was cleared of any notion that they were inept at properly conducting electrical services; any mishap had been due to an accidental mechanical error.

The last complaint lodged by the City Council pertained to the quality of equipment that the Utilities possessed; rumors abounded, insinuating that the equipment was inadequate and was being overworked. These sentiments were erroneous. Despite using temporary replacements for the fire-damaged switchgear building and the Curtiss-Wright turbine being down, the stag unit and three other diesel units in the downtown plant produced enough power for the community. They even had a fourth diesel on standby. With a plentiful supply of energy being produced, General Manager Alexander did admit that they bought some power from UPA but that was because it was cheaper to buy than to produce energy. He went on the record to state that when all their equipment was working the Utilities had a generating capacity of 60.7 megawatts; this was enough energy to serve the community and its predicted future growth for the next 10 years.^{cxii} At the most recent peak usage hour, the demand had only crept up to 28 megawatts, a far cry from the Utilities' maximum capacity.

A majority of the complaints that citizens had voiced in January became all but non-existent by the middle of spring. By then, the outages had become a distant memory and the Utilities were only looking forward. Most of the switchgear building construction was near completion and management was already arranging to provide better service through working on the loop line. While matters surrounding the fire were finally on the path towards resolution, incidents between HUC and Curtiss-Wright led to the dissolution of their professional relationship.

The Undoing of Relations with Curtiss-Wright

These formidable times that the Utilities had endured, due to the fire, were exacerbated by the out-of-commission Curtiss-Wright turbine. Coincidentally, within a day of the outbreak of flames at the switchgear building, the C-W unit was down thus adding to the pandemonium. While concurrent, the incidents were unrelated. Pieces of metal within the Rolls Royce Olympus C gas generator were discovered on the floor, near and around unit #9, making it inoperable.^{cxiii} It was found that the blades in the lower compressor portion of the turbine were ruined because a broken section from one of the inlet guide vanes (IGVs) had passed through a rotor, rendering the turbine useless. The aforementioned frustrations that the community had directed at the Utilities, such as the complaints about properly working equipment, were in large part about the failed #9 unit.

Without delay, the Commission board instructed General Manager Alexander to talk to Curtiss-Wright about the Utilities' warranty coverage with the expectation that HUC would be fully covered. He also inquired about how quickly the unit could be repaired or restored. At the time of loss, Manager Alexander proceeded to be in almost daily contact with C-W officials, working tirelessly to find a remedy to this predicament. The broken metal pieces that had composed part of the engine were manufactured by Rolls Royce, thus making matters more complicated as HUC had to deal with two different companies. Accordingly, the Hutchinson Utilities issued a purchase order that was sent to Curtiss-Wright which authorized the unit #9 repair.^{cxiv} At the time of the unit loss, the Olympus gas generator had only accrued approximately 765 hours of operating time since the moment it had been installed. While more than a year had passed since the initial installation of unit #9, the unit had been out of service for a greater part of 1978 for replacement work on a defective component in the turbine. Therefore, the Commissioners had opted to extend the one-year warranty. Pursuant to the existing contract between Curtiss-Wright and HUC, the Utilities believed the unit was still under warranty and that C-W would work to restore the unit #9 to a satisfactory working condition.

During May, the Utilities Commission heard some disconcerting news: Curtiss-Wright rejected HUC's purchase order and countered with its own purchase order for the down unit, in the amount of \$381,000.^{cxv} Typically, this loss would have been covered under the manufacturer's warranty. The main divergence in opinion between the two parties was in regards to whether the stipulations of the extended warranty were violated. With their refusal to honor the warranty agreement, C-W provided a record of "failure" items and tasks that the Utilities had neglected to do. Curtiss-Wright staunchly believed that its warranty responsibilities were absolved following the discovery that Utilities' workers had not performed the required inspection of the inlet guide vanes at 250 and 500 hour intervals. The company went on record to assert that, "If the required inspections of the entry guide vanes had been performed, a catastrophic failure would have been avoided. This failure is therefore not covered by the contractual warranty."^{cxvi} A C-W analysis report that took place on February 23, 1979 determined that if the Utilities' staff had made inspections, the results would have revealed a serious problem with a loss of material from the IGVs and that would have resulted in corrective measures being taken. From Curtiss-Wright's view point, these transgressions negated the warranty.^{cxvii} In light of C-W's response, the Utilities were advised by a local lawyer to hire expert legal counsel; HUC turned to Larry Zelle of the firm Robins, Davis, and Lyons of Minneapolis to be their representative.^{cxviii}

The following weeks and months were spent on determining which party, if any, was liable for the series of events that led up to the failure of the unit. Based upon research orchestrated by the law firm in Minneapolis, the Commission board learned that the faulty design of the inlet guide vanes was the culprit that had damaged engine #9. A potentially debilitating condition was known to Rolls Royce and Curtiss-Wright for a considerable period of time; the material that composed the IGVs had a high probability of fatigue cracking in the vanes. Curtiss-Wright made a statement that, "...cracking of the entry guide vanes can occur within the estimated repair of overhaul life of the gas generator" and Rolls Royce remarked that, "vane failures have occurred previously..."^{cxix} Despite the revelations, Curtiss-

Wright continued to maintain its position by declaring that Hutchinson was solely “culpable” for the damage incurred on unit #9.

While the Utilities admitted that they were guilty of not executing visual inspections at 250 or 500 hour increments, their legal representation argued vehemently about several flawed aspects of Curtiss-Wright’s inspection requirements and actions that undermined the visual assessments’ significance. Mr. Zelle began with the failure of Curtiss-Wright to properly inform HUC of the stringent inspection requirements. HUC management avowed that although they were provided with a service information bulletin and maintenance procedure instructions, information pertaining to the IGV examinations were merely two page documents incorporated within several thousands of pages of C-W information and technical materials. On top of that, C-W had dispatched a field service representative to train Utilities operating personnel after the installation of unit #9 and had failed to make any special mention of the required visual inspections. These actions by Curtiss-Wright appeared to be contradictory to their stance that the inspections were central to preventing a devastating unit failure. Mandating the 250 or 500 hour inspection was a crucial component that the Utilities’ lawyer believed was admittance on behalf of C-W that its equipment was defective and potentially nonoperational. Under the assumption that the unit would have been running for 24 hours a day, seven days a week, would have meant that the unit could have only operated for a maximum of 10 consecutive days if HUC would have inspected it every 250 hours. Simultaneously, with each inspection, Mr. Zelle felt that it was highly probable that damage to the IGVs would be detected during each check. Even if one IGV had to be replaced every 10 days of operation, the replacement cost was approximately \$1,000. He figured that on this schedule, the C-W gas generator would have required maintenance costs in excess of \$15,000 for every 30 days of operation. Simply put, it was a costly endeavor that would require numerous interruptions in the unit’s overall function. The last aspect of the inspection requirement was the most troublesome. Curtiss-Wright’s inspection procedures were not preventative, they just perpetuated the cycle of customers replacing defective parts. It was also discovered that C-W had been a deceitful seller; the Rolls Royce Olympus “C” generator was actually a retrofitted and modified Olympus “B”.^{CXX} The culmination of all these facts led the Commissioners and its legal counsel to believe that Curtiss-Wright had breached the sales contract for not selling and providing the Utilities with a properly functioning turbo-generator unit. Consequently, the failed engine’s impact was not confined to the Utilities alone. Due to the series of events, the Utilities faced violating their own agreement with the United Power Association because of the down unit.

Strains on the ITA

Hutchinson’s energy abundance of 1976, which sparked an amended version of the Interchange Agreement between the United Power Association and Hutchinson Utilities because of the Curtiss-Wright unit purchase, languished following the unit’s breakdown. The said agreement set forth the terms and conditions for the 15 megawatts of excess peaking capacity that UPA was to purchase from the Utilities. Since the C-W unit was no longer operable following the discovery of metal fragments near unit #9, the Utilities had to abdicate their selling position to UPA. HUC crept close to contravening the agreement, which resulted in UPA voicing their distress about the unavailability of the turbine of which

they were supposed to be purchasing energy from over the course of many months. Since January 11, UPA had continued to honor the agreement through administering payments without receiving any energy in return.^{cxix} In response to the complaints, a new agreement was confirmed between the two parties in September that in the event that unit #9 was not operating up to industry standards after October 31, 1979, there would be a month-to-month suspension of UPA payments.^{cxix} Unfortunately, on November 1, the unit was unable to attain even a par performance status. Opportunely, that lackluster performance would not last long. Within seven months, unit #9 was functioning and the two entities entered into a new agreement where UPA would purchase capacity from the unit for the following six years.

Negotiation and Litigation

At a pivotal crossroads, the Commissioners and Utilities' management needed to determine which course of action to take. While at first contemplating a rescission of HUC's contract with C-W, the Commissioners instead decided to discuss other options with Curtiss-Wright. The Utilities hoped to maintain a good relationship with the company in order to successfully facilitate the repairs on the damaged unit. Both parties were in agreement that they wanted to avoid litigation, if possible; a period of settlement negotiations ensued. In the early stages of the settlement process, the two parties disagreed over how much of the replacement costs each was to absorb. While C-W had originally quoted the replacement cost to be \$381,000; they stated that the tally for all materials and labor was \$526,769.83.^{cxix} After various rounds of questions, accusations, and propositions, C-W's final offer was for HUC to pay \$190,000 with C-W covering the rest of the costs. HUC felt this was unacceptable. Countless other offers were exchanged between the two parties, none of which were deemed fair or reasonable by Utilities' management. Growing tired of this incessant discourse, the Utilities evaluated their other options. Due to the many reasons cited above about C-W's questionable actions and claims, the Commissioners felt that they had a winning case. Refusing to be deprived of their legal rights, HUC soon found themselves past the negotiating stage and instead became embroiled in a lengthy litigation battle with Rolls Royce and Curtiss-Wright.

From the onset, the Curtiss-Wright unit had never performed as was originally promised. Problems abounded. After the unit broke down in 1979, it took over a year to get unit #9 back on-line.^{cxix} Comparatively, the legal process was more time-consuming and prolonged; eight years passed before the matter was resolved in court. HUC's legal representation was first able to settle with Rolls-Royce in 1983 (manufacturer of the substandard engine) for a sum of \$75,000. Next, the Utilities initially won the case against Curtiss-Wright, but it was appealed.^{cxix} Instead of continuing the years-long process of arguing in court, both entities were eager to find a solution. Triumphant, HUC walked away after accepting \$530,000 from Curtiss-Wright. After lawyers' fees and other costs were paid, the final settlement amount was \$346,504.70, a hefty sum.

Riddled with trials, tribulations, and triumphs, these 10 years proved to be an intriguing period of time for the Utilities. No matter what hardship came their way, the Utilities tackled each problem

head-on and usually emerged victorious. The ebb and flow of the 1970s were followed by a calmer, yet thrilling period. Workers, management, and Commissioners of the Utilities looked ahead to a brand new era to see what the future had in store for them.



This was the new logo design that appeared at the end of these 10 years.