

Chapter 10: A Burst of New Energy

The final decade of the millennium was upon the Utilities. America was preparing to enter a new, postmodern age permeated with scientific and technological advances. Computers were making their way into people's living rooms while the Internet banished geographical limitations on the ability of people to connect with others who resided many miles, states, countries, or continents away. These breakthroughs helped modernity be celebrated in many aspects of American life. Technological improvements were not confined to computers and gadgets, but rather infiltrated all sectors of business, including the utility industry. An increased supply of more contemporary, streamlined, and efficient equipment caused the Utilities' personnel to re-evaluate their facilities; the latest addition to the power plant had taken place in 1976. It became apparent to HUC that in order to keep up with the swiftly changing times, they needed to make a few sublime purchases to support Hutchinson's ubiquitous challenge, a blooming populace.

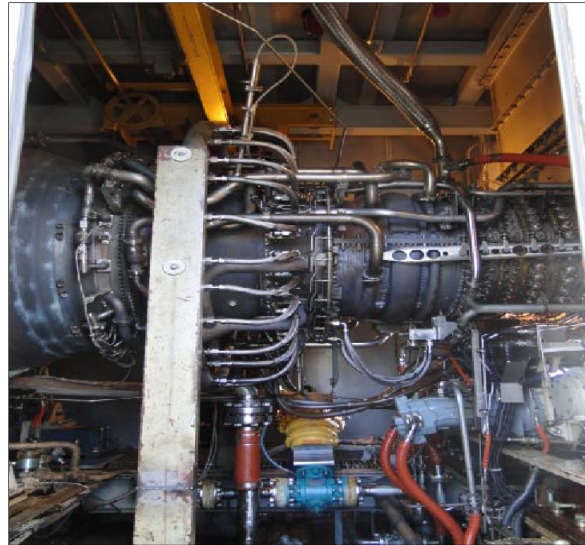
More families and companies were moving to town due to the attractive and lucrative opportunities that the city had to offer (the low energy rates offered by HUC were appealing incentives). This population boom inevitably led to the expansion of the town's borders and the need to annex surrounding land. Disagreements arose with one of Hutchinson Utilities' neighbors over which party was to provide energy to the various properties and the proper amount of reimbursement that was to be paid. Lastly, just as modernity was sweeping across the nation, a sort of 'green fever' became prevalent in many states. With the access to an infinite amount of data and intelligence available on the Web, many people's concerns about the environment grew as they became more aware of the impact their actions had on the earth. This knowledge trickled down to the Utilities in the form of a new state mandate. Even though the Utilities' management and Commission board were ambivalent about the decade, they knew it was going to be another exciting and exhilarating time. The one thing that would remain steadfast was HUC's commitment to providing an affordable supply of energy; for a short while, the Utilities attained the lowest power rates in the entire state.^{c1xxxv}

Mounting Energy Needs

Historically speaking, Hutchinson's citizens paid one of the lowest utility rates in the state among municipal utility customers. A 1989 survey revealed that HUC rate payers paid 30 percent less than public utility customers in southern Minnesota. In order to keep their renowned rates at a low level, the Utilities needed a plan that would ensure that the cheap rates could be maintained into the future. Before any proposal could be implemented, management needed to ascertain the future need for power. Presently, the population growth was not slowing down and neither was the pace for local companies' development plans. Wal-Mart was already in the midst of constructing a store on the south part of Hutchinson while HTI was looking at expanding its facilities through the erection of more buildings. In order to properly serve the needs of their customers, the Utilities needed to meticulously assess their ability to furnish power through evaluating HUC facilities. Some of the equipment in the Utilities' possession was a bit dated; a few pieces in the power plant were 45 years old. While all of the equipment was functioning acceptably, the Utilities needed to acquire more equipment to add to the

plant apparatus in order to properly serve the predicted future demand of the public. HUC briefly considered buying or leasing a power plant with another utility partner; the Commission board swiftly dismissed the notion after learning that no such plants were available. By the middle of 1990, management turned their attention to the possible acquisition of a new generating unit, such as a high-efficiency jet engine. The potential outcome of acquiring such a radical piece of equipment was that the Utilities would be able to sustain the low energy rates to customers through the end of the century and possibly beyond, or at least that was the hope.

After a year and a half passed by and numerous studies were waged, it was determined that a major upgrade, in the form of erecting a large engine unit, was needed to support the perpetual growth of Hutchinson. Prior to this determination, General Manager Kadrmas was commissioned to oversee a power supply study in 1991 for the solicitation of proposals from suppliers for the provision of reserve capacities to HUC. While doing so, he investigated some alternative, hopefully more affordable options. He was stupefied by the results. “Just out of curiosity, I decided I would factor in a power plant expansion. It came as a surprise that expansion was the most cost effective option,” explained Kadrmas.^{clxxxvi} After hearing his findings, the Commission board abandoned the search for reserve capacities and instead settled on constructing a \$12.2 million facility southeast of the Utilities’ main office. In order for this plant expansion to succeed, the Utilities needed to publish a bid announcement for the most superlative engine unit. In the bid advertisement, HUC requested for the provision, deliverance, and placement of a simple cycle gas turbine generating set (GTG) that had an approximate base load rating of 35,000 to 45,000 kilowatts and was capable of burning both natural gas and No. 2 fuel oil.^{clxxxvii}



The LM 6000 engine

Weeks of assiduous scrutiny passed by before the Commission awarded the bid for the new generating engine, christened unit #1, to General Electric (GE). For \$12,151,200, GE offered to furnish its LM 6000 engine, which was touted as one of the most efficient units on the market. With 80,000 horsepower, the LM 6000 could satisfy the needs of the entire city on the hottest day of the year with no difficulty. This contemporary unit was to be the focal point of the second plant site for HUC. Once the new plant was operating, HUC felt it would be in a terrific selling position because there were only a limited number of plants being built in the region in the foreseeable future; Utilities management conjectured that its second plant could fill the regional void.^{clxxxviii} Needing to find a means to finance the project, the Utilities hoped to secure some revenue bonds. After surveying the spectrum of offers, the Commission Board awarded a bid from Piper Jaffray Inc. for \$14,075,000 public utility revenue bonds. Scheduled to go on-line in 1994, it appeared as though the Utilities would have a tough time making the deadline upon hearing that the GE unit was backordered. While waiting for the unit to be shipped from Houston,

Texas, the staff got other preparations in order, such as obtaining permits, as they waited for the tentatively-set groundbreaking date of April 26, 1993 to arrive. HUC was eager to have its new plant providing the community with a steady source of inexpensive power.

The typical process of embarking on a project of this magnitude typically lasted between five and six years; HUC was able to make the pivotal decision to purchase the LM 6000 in a mere one-and-a-half years. Even more remarkable was that this was a tremendous purchase for a town of Hutchinson's size. What made the circumstances more uncommon was that it was the first purchase to take place in Minnesota following an agreement between General Electric and the company Steward and Stevenson Services to package and distribute the LM 6000 generator. Both companies sent a representative to



These are the names of those Commission members, along with management, who helped bring about unit #1.

present a dedication plaque in recognition of HUC's purchase of the GE turbine unit. Applauded for their ability to make decisions in an expeditious and diligent manner, management and the General Manager received praise from the spokespersons. "We see so many municipalities agonize over points that don't really effect (*sic*) the technological aspects." The GE

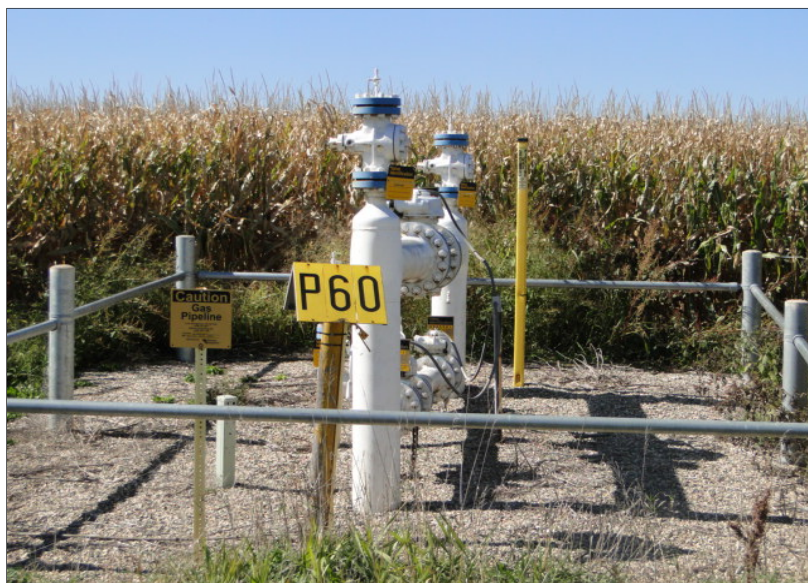
spokesperson went on to proclaim that, "It's one more milestone between GE and Hutchinson Utilities."^{clxxxix} This was not the first business transaction between HUC and GE;

over 20 years ago HUC had purchased a unit from GE that was placed on-line in 1971. Never stagnant in planning, Utilities personnel moved forward with other projects that kept delivering energy to customers' businesses and homes.

Vandalism at a Border Station

That stream of perpetually flowing gas was obstructed when a valve was turned off at a border station and wreaked chaos in Hutchinson one cool Sunday morning in October of 1992. Not a circumstance of happenstance, this was instead an act of vandalism committed by a culprit (or culprits) that spared no HUC customer. The crime scene was at a station roughly six miles north of the community, near Gopher Campfire. A person (or persons) turned a valve that shut off gas service to the entire town. Northern Natural Gas Company, owner of the tampered valve, immediately requested two government entities to become active participants in the investigation. Complicating the crisis was that the already cool weather was experiencing a modest drop in temperatures. This state of affairs necessitated for nearly all of the town's companies and industries to close down their businesses, at least for a few hours. Residents were asked to either shut off their furnaces or turn them down low prior to crews turning the gas on and relighting the pilot lights. Moving hastily, the Utilities' gas crews began the daunting process of turning off every customer's gas meter to allow the lines to bleed. The

aggregate amount of meters was around 3,800. Fortunately, the Utilities personnel did not have to go it alone. HUC dispatched a call for help and received a deluge of offers to come to their aid; even with the assistance of numerous other utilities, crews worked tirelessly to restore service to every home and business for three days. Workers arrived from Austin, Circle Pines, Minnegasco, New Ulm, Owatonna, and Northern Natural Gas Company to help check for leaks in every customer's home.^{cxc} Furthermore, local volunteers from the Fire Department, Rick Plumbing and Heating, TEK, and Allied Mechanical spent many hours and relighting residents' furnaces and water heaters following the incident. HUC was deeply appreciative for these individuals' generous hours of help. General Manager Clarence Kadrmas expressed his gratitude to those who helped in HUC's time of need when he stated, "The outpouring of help was more than we expected. All I can say is I really appreciate the help."^{cxcii} If it had not been for the aid of so many people, the situation easily could have advanced into a calamity.



A picture of the formerly vandalized border station, taken in 2010.

The implications of this incident reached much farther than the city's borders. After receiving a request from Northern, the FBI and Bureau of Criminal Apprehension began investigating the felonious event. HUC offered a \$10,000 reward for any pertinent information that would lead to the arrest and/or conviction of the perpetrator(s). Meanwhile, Utilities' management calculated the costs sustained during the gas shut-off; actual losses from the event, including revenue and labor, amounted to more than \$50,000. If the costs of all the volunteer efforts had been tabulated, the amount soared to \$125,000 (no monies were actually paid to any of the neighboring utility crews or local volunteers). It would remain unknown about the total loss of revenue incurred by the city's industries and businesses. To prevent any further tampering of border stations, crews installed security systems on the valves. Meanwhile, Northern took precautionary measures to ensure the safety of its valves across the state and throughout the nation.^{cxcii} Almost a year following that eventful Sunday morning, the lingering effects of the vandalism concluded. After eluding law enforcement agencies for months, felony charges

were waged against three individuals for tampering with the natural gas pressure valves; the men paid dearly for their crimes with spending time in jail and being held financially responsible for the incident.^{cxci} A former gas superintendent, Ivan Larson, reflected on this event as one of the most trying episodes of his professional career.^{cxci}

Hutchinson's Expanding Boundaries

With businesses booming and families flocking to Hutchinson, the borders were continually expanding and encroaching on the McLeod Cooperative Power Association's (MCPA was a Rural Electrification Administration member) service territory. Disputes over regional perimeters were a common fixture in not only HUC's history, but for all utility companies. The quarrels manifested into a state-wide problem between many municipal power agencies and rural cooperatives that commanded the state representatives' attention. During 1974, the Minnesota Legislature addressed the concerns of all electric agencies and cooperatives when a statute was passed that required electric utilities to prepare a set of official service area maps that illustrated established boundaries. The purpose of this statute was to eliminate the duplication of electric facilities, encourage the coordination of state-wide electric service, and most importantly, to determine which electric utility would provide electricity on an exclusive basis.^{cxv} Realizing that the rate of growth would not remain static for any town, the state legislature established a procedure that allowed municipal utilities to acquire portions of other utilities service areas that were within a city's limits. In response to the statute, an agreement was orchestrated by HUC and MCPA in 1974 that outlined the boundaries of each party's service region. A compensation formula was devised that stated the Utilities would pay the equivalent of 10 years worth of their profit on the newly-annexed site, which was roughly two-and-a-half times the total sales on the site for one year. Another stipulation in the agreement was that MCPA was to be compensated for any of its equipment that had been serving the area.^{cxvi} This document remained as the premise on which the two parties operated, harmoniously, regarding service areas for the next 17 years. Some snags materialized after Wal-Mart came to town and Hutchinson Technology Inc.'s development plans unfurled.

Out of all the expansion that Hutchinson was undergoing, one particular side of town bore witness to a burgeoning and limitless growth. Creeping further and further south, the boundary of the town was extended as more neighborhoods sprung up and two new schools were constructed. Adding to the expansion was the mammoth corporation, Wal-Mart. Its representatives planned to annex a plot of open property located just south of the present boundary lines of Hutchinson in which it could erect a retail store. Whenever the City took possession of a tract of land, the electrical service switched over to the Utilities. HUC and MCPA were able to come to a concord, regarding the Wal-Mart property, which followed the procedure articulated in the 1974 agreement; the Utilities purchased the service territory and compensated MCPA with one-half of the property's net proceeds for 10 years. Between the original agreement and when the Wal-Mart store was built in 1992, there was never any compensation payment made by the Utilities Commission to the McLeod Cooperative for "bare ground"; the term implied land that had no prior signs of human development.^{cxvii} Just a couple of years later the clarity of the agreement became clouded following HTI's decision to construct two different facilities on bare ground.

These actions served as a catalyst for HUC and MCPA to find a satisfactory resolution regarding this complicated issue.

Although there was an upswing of businesses and people residing on the south side of town, one of HUC's largest customers and one of Hutchinson's leading employers remained stationed along the northeast border of town. As a result of its prosperity, Hutchinson Technology Inc. started to annex adjacent property to accommodate its expansion plans. While doing so, the company inched closer to straddling the service territory boundaries of HUC and MCPA; up until this juncture, all of HTI's headquarters had lain within Hutchinson Utilities' service area through 1991. During that year, HTI ventured beyond HUC's territory and built a tooling center in the McLeod Cooperative's service region. Opting to extend its own distribution facilities to the building, HTI continued to have power supplied by HUC through a designated delivery point. MCPA did not object to this arrangement. Bringing a condemnation action against McLeod Cooperative, HUC sought to not only acquire the HTI piece of land, but to add other properties to its territory that were formally part of MCPA (such as the Clocktower Plaza and the Hutchinson Area Transportation Services building). Victorious, the two parties were able to execute the Settlement Agreement of 1994, which revised the service territory boundaries in accordance with Hutchinson's condemnation charges; it also provided payments to MCPA for HUC's acquisition of its facilities, service areas, and the release of customers.^{cxviii} While both parties were pleased with the outcome, they failed to address two major issues in regards to HTI: the boundary line between MCPA and HUC in respect to HTI's property, and the compensation that MCPA should receive for the loss of territory, or bare ground.^{cxix} Instead of fading away, the problem flared up in a matter of months.

All through September of 1994, HTI labored to build a training center on a five acre parcel of vacant land that was acquired in 1987, 12 years after service boundaries had been set. Once again, the structure was within McLeod Cooperative's assigned service area even though the building was within city limits.^{cc} Reiteratively, HTI chose to have HUC supply power to its distribution center. This time around, MCPA voiced its protestations. While Utilities' management conceded that it was indeed serving HTI, they construed that HUC's acts were authorized under prior agreements between the two parties. McLeod Cooperative disputed the right of HUC to serve HTI without rightly paying for it. Divergences in opinion regarding the interpretation of past agreements and statutes resulted in MCPA turning to a third party to help settle the matter, once and for all. Filing a complaint to the Minnesota Public Utilities Commission (MPUC), MCPA attempted to assert its statutory right to serve "each and every present and future customer in its assigned service area."^{cci} Personnel from MCPA strove to obtain an order that required Hutchinson Utilities to discontinue providing electric services or pay just compensation to McLeod Cooperative in order to gain possession of the service area. MCPA was hesitant to give up any more territorial land rights to HUC, yet HUC felt it had a resolute responsibility to serve its customers and those persons who desired the Utilities' services.^{ccii} HUC's stance on the issue was that they were not obligated to compensate McLeod Cooperative for the five acres because the land was "bare ground" when annexed (similar to the Wal-Mart property and HTI's tooling center). It was determined by the Minnesota Public Utilities Commission that if HUC was going to supply power to

HTI, MCPA was due fair compensation payments. Ordered to either cease providing electrical service to the training center or begin a compensation transaction with MCPA, Hutchinson Utilities proceeded to meet with MCPA representatives to strike a deal.^{cciii}

Over the next two years, the two parties met several times to hammer out an agreeable pact. Determined to defuse the situation, the Commissioners offered MCPA \$23,000 for the disputed territory. The McLeod Cooperative board countered the proposal by requesting a higher payment. It appeared that both parties were willing to settle for \$46,000, double the original offer put forth by HUC. MCPA was poised to “release, acquit and forever” discharge from the Utilities any obligation or responsibility to pay the Cooperative for any of the service territory newly acquired by HUC (mainly HTI properties). Both parties were willing to make this the final compromise in regards to the HTI headquarters.^{cciv} As MCPA was preparing to sign the new agreement, HTI announced another expansion. This revelation crippled HUC’s proposal. The Cooperative firmly believed that they were entitled to more compensation for the loss of such a lucrative customer. Desiring to prevent the matter from going to a hearing before an administrative law judge, HUC presented a newly-vamped offer of \$100,000. MCPA accepted.^{ccv} In addition, the Utilities came up with a mathematical method that would multiply HUC’s gross revenue by two-and-a-half times in order to come up with an appropriate compensation amount for times when potential customers requested the Utilities’ services. Furthermore, it was decided that the City of Hutchinson would pay \$800 for bare ground, per building, to MCPA.^{ccvi} HUC became one of the first municipals in the state to design a cost formula (loss of revenue) that would later become the standard guideline that other utilities and the Minnesota Municipal Utilities Association followed in regards to service territories.^{ccvii} After six years, the two parties were finally able to close the highly contentious issue when they signed a power and service agreement during the autumn of 1997.

A Renewed Interest in Conservation

The early 1990s saw a resurgence in conservation efforts, owing to the growing body of research and consciousness about earth and the detrimental effects of the collective human carbon footprint. Minnesota legislature deemed that it was so important to curtail pollution that they passed a law in 1991, which applied to both public and private utilities. It mandated that 1 percent of the gross revenue of electric sales and .5 percent of gross revenue gas sales had to be used for local energy conservation agendas; otherwise the money had to be turned over to the state. While all utilities had to submit its first plan to the state by 1992, energy programs did not have to be enacted until 1994. Even though the Utilities did not need to establish an energy conservation program, (they could have opted for the easy route of simply writing checks to the state) they were partial to spending the monies locally, where the results of their labors could truly be seen; more importantly, this was an opportunity to give back to the rate payers. Thereupon, Utilities’ personnel were resolute in their search of the most superlative forms of conservation methods. After perusing through various ideas and plans, the Utilities amassed a few fantastic programs.

A group by the name of Hutchinson Tree Board approached the Commission board, to request a \$15,000 contribution from HUC that would be matched by the Minnesota ReLeaf Grant. The funds would go towards energy tree plantings on both private and public properties in the following year. Instead, the Commissioners elected to contribute \$10,000.^{ccviii} Even though an array of trees could be planted, the Utilities monies went wholly towards the growing of windbreak or shade trees. In the year of 1993, 694 energy conservation trees were planted. Hoping to plant at least 200 trees the next year, the Tree Board reappeared at a Commissioner's meeting and appealed the Utilities to partake financially in the grant project, again. Here began the tradition of the Utilities donating at least \$10,000 every year (except for 2006) to the Hutchinson Tree Board; beginning in 1997, the contribution doubled to \$20,000, and would later multiply to \$30,000.^{ccix} Many citizens have commended HUC for investing Utilities' monies wisely in the town, where all can reap the benefits of beautiful and energy-efficient trees lining the yards of homes and businesses alike.



Image courtesy of <http://www.dvoc.org/>

Contributions to the Tree Board did not claim all the available conservation funds. Starting in 1994, the Utilities added to its conservation repertoire an issuance of energy conservation grants to residential customers. Available to homeowners for weatherization efforts, the grants were devoid of any income or eligibility requirements and were simply supplied on a first come/ first serve basis. Participants had to perform improvements to their residence that would save heating energy, such as: replacing windows, storm doors, insulation, etc. Equipped with roughly \$70,000 during that first year, the Utilities awarded grants in the maximum amount of \$500 to each homeowner for weatherization efforts.^{ccx} Uncertain of how the program would pan out, Utilities staff was pleased to issue grants to 74 homeowner participants in the Grant Program's inaugural year, amounting to \$35,000.^{ccxi} The program was such a success that the Utilities reinstated the grants, year after year. Progressively, each passing year saw an increase in the amount of requests and likewise, the sum of available funds. Arguably, the Utilities' rebate program was the most popular and successful of all the HUC conservation efforts. Acclaim for the Utilities' decisions was prevalent throughout the town; customers and citizens were enthused that the monies were kept for local use.

As the Utilities were nearing the conclusion of these 10 years, they saw a progression in the amount of funds that were awarded to citizens of Hutchinson. By 1999, HUC's annual Energy Conservation Program was providing over \$53,500 in the form of grants to homeowners, \$20,000 being given to the Hutchinson Tree Board, \$6,000 was absorbed by administration fees, and approximately \$44,500 was delivered to the Hutchinson School District (see Chapter 12 for more information). As more trees sprouted and new heating measures were implemented, grant participants saw their bills go down; customers could see the tangible effects of HUC's energy program. It was the intention of the

Commission board to continue into the next millennium with a deeper fervor and commitment to embed residents with a desire and knowledge to conserve.

The LM 6000 Comes to Town

After being in the works for over four years, the Utilities' second plant was finally able to become a reality. Tenaciously, HUC's staff was able to acquire all the necessary plans and equipment to ensure that unit #1 and the plant were up and running by 1994. Despite its delay in arrival (caused by a backorder), the GE unit came rumbling into Hutchinson on a truck that was supported by 102 tires. For the first time, the LM 6000 was started on July 6, 1994 and seven days later it was generating electricity. At the end of the year, the unit had approximately 2,100 hours of operating time.^{ccxii} Following a successful generating trial, the Utilities Commission thought it was a good idea to allow Hutchinson citizens to survey, up and close, the truly unique design of the plant site and behold the wonder of unit #1. Gates around the Utilities' second plant were opened to the public on April 21 and 22 of 1995. On display for all of the visitors to see was a heat recovery steam generator, switchgear, power transformer, Marley cooling tower, new Carrier steam absorption chillers, pumps, piping, and buildings that housed equipment. In tandem with the times, Utilities personnel ascertained that a couple of these items were designed to aid the plant in becoming more efficient and energy-conscious through the use of waste heat and chillers. Yet, the true show-stopper was the towering LM 6000 gas turbine; its design was inspired by engines used in various Airbus and Boeing 747 models and was made by General Electric's aircraft division plant in Ohio.^{ccxiii} At full load, the turbine drew approximately 6.6 million cubic feet of natural gas a day and generated enough power to light almost 14,000 homes. The addition of unit #1 swelled the total generating capacity of the Utilities to 108 megawatts, 52 of which came from the cutting-edge engine. Outfitted to be a steady and inexpensive source of power, the plant was large enough to service Hutchinson, and then some; the city's peak load was presently an approximate 53 megawatts.^{ccxiv} By the end of its first commercial season of operation, unit #1 had produced 151,602 megawatts of electricity.^{ccxv} Plant #2 was a sublime source of generation that came to fill an energy void.



Unit #1

Facing an Energy Shortage with an Excess of Power

The power pool that Hutchinson was a part of was projected to be 173 megawatts short of demand by 2001. This scantiness was expected to grow to 638 megawatts the following year. Because of HUC's strategic planning, the new power plant assured a persistent supply of power for the next 15 to 20 years, even if some of the older generating units had to be taken off-line. At the present time, HUC was unable to consume all of the generated energy because the town's growth did not currently warrant the plant's full usage. So, the Utilities looked to sell some of its excess power, amounting to 25 megawatts.^{ccxvi} Due to the power pool's pending electricity shortage, UPA and HUC struck a 10-year lease that not only helped decrease the power pool's energy paucity, but allowed for Hutchinson's customers to have a stable, low-cost power source because of UPA's lease payments.^{ccxvii}

HUC's Commitment to Low Rates

Hutchinson Utilities clung tightly to one of its fundamental objectives as it procured the LM6000: maintaining an affordable supply of energy to the citizens of the community. Through adhering to that principle, the Commission board did not have to wage any rate increases following the purchase and installation of the new unit. In fact, they even expressed hopes to decrease the rates due to unit #9's excellent energy-efficiency attribute. The Utilities' industrial rate was 3.24 cents per kWh; the state average was 5 cents. Business and residential rates were 4.4 cents, contrasted to the state average of 5.9 cents. Considering these comparisons, it came as no surprise that HUC's rates were the fifth lowest in a pool of 150 utilities. Since the plant had been conceived by General Manager Kadmas, he and some of the Utilities' staff designed much of the project and oversaw its production, thus saving HUC's customers an estimated \$5 to 7 million. Even though the project totaled \$22.7 million, payments were disbursed among the following: \$12.7 million came from HUC's savings and the other \$10 million came from the revenue bond.^{ccxviii} The continuation of low rates for Hutchinson's customers was due to the unceasing work of the management and personnel that resulted in a plant being acclaimed as the most efficient in Minnesota.

Financial Contributions to Hutchinson

In a matter of five years, Hutchinson Utilities contributions to the city had raised over \$100,000, from \$559,000 in 1990 to \$675,000 in 1995. This financial transfer was the City's third largest source of revenue after local government aid from the state and the tax levy paid by local residents. The mayor appealed to the Commission board for \$400,000 to be placed in the General Fund while \$275,000 would be designated for Capital Improvements.^{ccxix} After making contributions to the City for the past 52 years (HUC started the monetary transfer in 1942 but was forced to abstain from giving any contributions in 1944 due to World War II), both the Commission and City Council members agreed that some sort of formula should be used to determine HUC's contribution amount, instead of being regulated by the whims of the economy or arbitrarily increasing the funds every few years.^{ccxx} The governing entities would not find a satisfactory solution until many years later. At the closing of the decade, the transfer of funds had soared to \$969,000.

Another Substation is Built

Hutchinson Technology Inc. was no stranger to growth during this decade, and after hearing of the improvement/expansion plans its management had in store for the company, it became apparent to the Utilities that they needed to accommodate HTI's growing, electrical needs. Management found their answer in a structure, the substation.^{ccxxi} A substation is a subsidiary station where electricity is transmitted and transformed for local distribution. These structures are critical links in the distribution system since they have the ability to switch, change, or regulate electric voltage. After electricity is generated, it is carried by high-voltage transmission power lines to various areas in need of the resource. Substations have the ability to improve the reliability of a municipal's electrical service by increasing its electrical capacity. It also has the ability to re-route power through its distribution feeders.^{ccxxii} This contraption was seen as a viable asset to HUC personnel because it could accommodate a growing customer base, not only at HTI, but throughout the entire town. Following the

preparations, obtainment of easements, acquisition of equipment, and preparation of the site, construction began in April of 1998. Named for its main beneficiary, the HTI substation was scheduled to be energized three months later, on the Fourth of July. While the HTI substation was not HUC's sole subsidiary station, (HUC's decision to purchase the Curtiss-Wright unit in 1976 required a transformer and 69 kV power line that in turn resulted in the first substation for the utility; 14 years later another substation was added when one



was constructed on 3M's property), it was unique. No overhead power lines ran to it, all the power travelled to the site underground. Management made the decision to bury the wires in light of hearing construction plans for Highway 7; road crews had expressed a yearning to raise the road. Any such work would have greatly interfered with above-ground electric lines, thus causing more work to be done on the Utilities' behalf. Ultimately, sub-level lines were the easiest course of action to pursue.^{ccxxiii} The addition of the HTI substation added another integral component to the Utilities' transmission system. It would only take a few months to pass before a meeting with Great River Energy (UPA and CPA merged into this entity in 1999) would call for a substation called "McLeod County" to better serve the needs of Hutchinson, McLeod County, and west central Minnesota.

Fire at Plant 2

An impending event threatened the soundness of the Utilities' equipment while rattling HUC's staff. On a seemingly typical day in August, Utilities' workers followed standard protocol when they started to shut down the older #9 C-W jet engine unit, complete with a Rolls Royce gas turbine. It was during this time that the workers encountered some unforeseen problems. In spite of the system's safety features reacting instantaneously by shutting off the main fuel supply, a line carrying about 600 gallons of lubrication oil inexplicably broke, caught fire, and triggered an explosion. Flames erupted while clouds of smoke billowed at the generating plant along Industrial Boulevard, otherwise known as Plant #2, on August 26, 1998. While fortunately no injuries were reported, approximately 25 percent of HUC's generating capacity (that was worth almost \$9 million) succumbed to the fire. The unit had accounted for 25,000 kilowatts of the Utilities' total generating capacity of 105,000 kilowatts. Believing the old turbine and its housing had suffered irreparable damage, personnel immersed their energies into finding a suitable replacement for the turbine and getting it back on-line within the next 18 to 24 months. Although the explosion hampered the Utilities' overall generation, it did not have debilitating effects for the citizens of Hutchinson. Power generated by the plant had not been employed for local use; rather the capacity had been leased to UPA.^{ccxxiv} While this predicament could have proved troublesome to other municipals, HUC had an agreement that removed any distress. Abiding by the ITA, the Utilities had up to two years to get its plant back on-line while lost power would be made up by other sources. Wasting no time, the Commission board hired Northern Pipeline to prepare the site where a new unit would be erected. HUC's insurance company unearthed a General Electric replacement generating unit in Italy, which was subsequently prepared in Texas prior to shipment to Hutchinson.^{ccxxv} Just in time for the New Year, the unit arrived. A few months following the elapse of winter, the unit began generating.

The Hot Days of Summer

The searing rays of the sun caused a heat wave to descend on much of the country throughout the middle of the summer in 1999, including Minnesota. Because the hot spell was so prevalent across the nation, which in turn caused copious amounts of generating facilities breakdowns, the cost of electricity on the open market catapulted to approximately \$4,500 per megawatt. Under normal conditions, a megawatt of electricity was sold for \$40 to \$60.^{ccxxvi} In reaction to the sweltering temperatures, the peak power usage at Hutchinson Utilities soared to 56.9 megawatts for almost an entire period that spanned the latter two weeks in July; HUC had yet again broken a record. The former record-smashing peak usage was 54.1 megawatts and transpired in 1998. Undeterred by the challenge, Utilities' personnel worked hard to maintain a steady supply of energy to all homes and businesses. With all units running, the Utilities still had to purchase some power from Great River Energy due to the absence of the unit lost in the fire. Because of their hard work, HUC's customers never suffered a blackout or even a minor disruption in power.

Y2K Draws near

As the decade drew to a close, a looming sense of uncertainty was cast over all parts of the world due to the Year 2000 problem, otherwise referred to as “Y2K”. People feared and speculated that immediately after the beginning of the new millennium, all computer programs and other pieces of technology would suffer significant failures as the clocks turned to 2000 because most technological creations were designed to represent the current year with two digits instead of four. Without corrective policies and actions in place, many feared that this would cause a global breakdown in all computer systems that would have a ripple-effect through all aspects of modern ways of life. Banking failures, energy disruptions, and traffic signal errors were just a few of the postulated repercussions of Y2K. Determined to prevail in this volatile period, businesses and government agencies sought to become ‘Y2K compliant’. This meant that a business became prepared to “accurately process date and time data between and into the 20th and 21st centuries.”^{ccxxvii} The Hutchinson Utilities felt that it was imperative to become Y2K compliant, and through working with their ITA partners, were able to attain the ‘compliant’ status.

In response to the potentially dire outcome of Y2K, the City Council, Utilities, police and fire departments, and many other city personnel gathered together to precontrive an emergency services plan for Hutchinson.^{ccxxviii} Assiduous, the city’s leaders were determined to tackle the incident with an arsenal of sound and thoroughly-developed strategies to counter any potential catastrophe. Taking all the necessary precautions, the Utilities Commission ensured that there would be enough personnel on duty to secure locations on New Year’s Eve in anticipation of Y2K and any potential problems following the transition into the new millennium.^{ccxxix} Fortunately, the Utilities’ security personnel and management stood idle as everyone and everything passed into the New Year with nary a technological glitch in Hutchinson. Instead, celebrations carried on through the night as people welcomed another new year.

For the Utilities, the 1990s was a time that the staff was bursting with all kinds of new energies. Due to modernity and its technological advances, HUC seemed to be infused with a desire to improve and/or revitalize their facilities. Amassing the LM 6000 turbine engine and HTI substation, while retaining competitively low energy rates, were no small feats for a town like Hutchinson. The Commission board found success in its talks with McLeod Cooperative and the implementation of its conservation program. This vigor that the staff experienced was easily transferred from the end of the millennium into the 21st century. Here, a time was born when the skies became clearer overhead and energy coursed through the ground below. Welcome to the 2000s.



An aerial view of Plant Number 2.