Minnkota Power Cooperative

Milton R. Young Station

MRY Station

MRY Station

June 2014

Minnkota Power Cooperative is committed to providing the best energy value in the region. This mission is not possible without sound environmental stewardship. The Milton R. Young Station has undergone significant upgrades to secure its future as Minnkota's jewel on the prairie.

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Overview

The Milton R. Young Station, a mine-mouth, electric generating plant located near Center, N.D., is a primary source of electrical generation for Minnkota Power Cooperative.

Headquartered in Grand Forks, N.D., Minnkota provides adequate, reliable and affordable electric energy to 11 associated distribution cooperatives, three in eastern North Dakota and eight in northwestern Minnesota.

Named for the late senator from North Dakota, the Milton R. Young Station consistently ranks among the lowest-cost, lignite-fueled power plants in the United States.

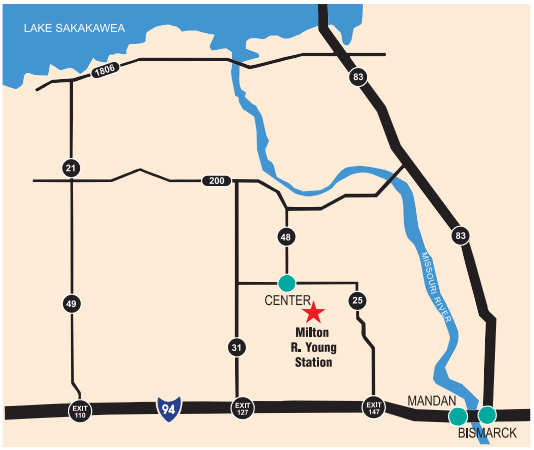
The Young Station consists of two units. Young 1, which began producing electricity in 1970, is owned and operated by Minnkota. It has the capacity to produce 250,000 kilowatts (kW) of electricity and is a main source of generation for more than 124,000 customers served by the associated cooperatives.

Young 2, with a 455,000-kW generating capacity, began producing electricity in 1977. It is owned by Square Butte Electric Cooperative and operated by Minnkota. Square Butte was formed by the Minnkota-associated cooperatives to meet the increasing electrical demand of their member-owners and to provide electricity to Minnesota Power, an investor-owned utility based in Duluth, Minn.

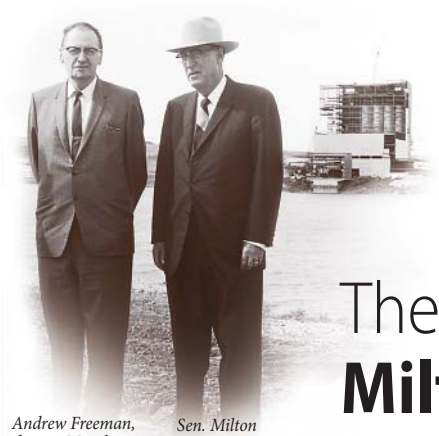
The output from Young 2 is purchased under contract by Minnkota and Minnesota Power. In 2009, monumental deals were completed to transfer 100 percent of Young 2's output to Minnkota by 2026. The agreements will secure Minnkota's future power supply through at least 2030.

An abundant, low-cost coal supply from the nearby Center Mine, owned and operated by BNI Coal, has played a key role in the plant's success.

The energy supplied by the Young Station powers farms, schools, businesses, taconite producers, paper and pulp mills, and other industrial facilities, as well as many residential homes.



The Milton R. Young Station is located four miles east and three miles south of Center, N.D.



Andrew Freeman, former Minnkota General Manager

Sen. Milton R. Young

The creation of the **Milton R. Young Station**

Faced with a need for additional power, Minnkota began researching the idea of building an electric generating plant in western North Dakota in 1959. In 1964, officials from Minnkota met with then North Dakota Sen. Milton R. Young to discuss the idea. A year later, Minnkota applied for a loan through the Rural Electrification Administration (REA) in Washington, D.C. The REA ultimately approved a $56 million loan in 1966.

Young 1

Young 1's turbine-generator unit was manufactured by General Electric and has a nameplate rating of 256,000 kW. Its cyclone-fired boiler was manufactured by Babcock & Wilcox. Young 1 has a net maximum output of 250,000 kW. It consumes approximately 4,400 tons of lignite coal daily, or about 1.5 million tons annually.

When the Young Station came on line Nov. 20, 1970, it incorporated many innovations at the time, including a cyclone boiler, allowing it to overcome the challenges of using lignite, a low Btu, high moisture and low sulfur coal.

To provide cooling water for the facility, Nelson Lake was created in 1968 by a dam built across Square Butte Creek. The earth-filled dam, 45 feet high and 1,500 feet long, created a 415-surface-acre impoundment.

The total construction cost of the plant was $44.9 million.

Electricity generated by Young 1 flows over a 214-mile, alternating current (AC) 345,000-volt transmission line to the Maple River substation near Fargo, N.D. From that point, it is distributed to a subtransmission system to serve the needs of customers who receive their power from the 11 Minnkota-associated cooperatives.

Young 2

Young 2 began commercial operation May 6, 1977. Known as the Square Butte power project, Young 2 was a concerted effort to meet the growing load requirements of Minnesota Power and the 11 Minnkota member-owner cooperatives.

Under the arrangements, Minnkota and the associated cooperatives formed the Square Butte organization to facilitate the project's financing, and to obtain options for Minnkota to acquire power from the new station.

The construction cost of Young 2, which resulted in the expansion of Nelson Lake to 660 surface acres, was $251.7 million. Its cyclone-fired boiler was also manufactured by Babcock & Wilcox. Westinghouse supplied the turbine-generator unit. Young 2 has a nameplate rating of 488,000 kW and a net

Young 2 is owned by Square Butte Electric Cooperative and operated by Minnkota. Its output is purchased by Minnkota and Minnesota Power.

Minnkota's allocation of the Young 2 output

2014	72.5%	330.0 MW
2015-2021	78.0%	355.0 MW
2022	82.4%	375.0 MW
2023	86.8%	395.0 MW
2024	91.2%	415.0 MW
2025	95.6%	435.0 MW
2026	100.0%	455.0 MW

maximum output of 455,000 kW. Young 2 consumes approximately 8,300 tons of lignite daily, or about 2.8 million tons annually.

During its history, Young 2 output has been purchased in varying allocations by Minnkota and Minnesota Power.

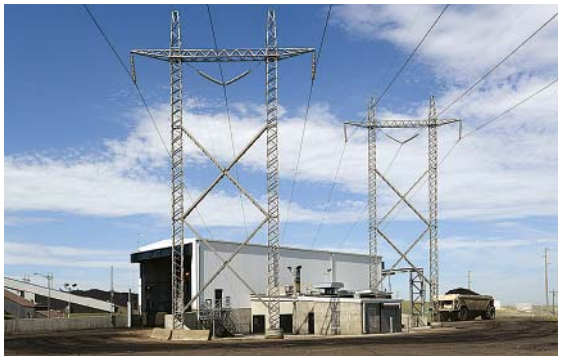
Both had received 50 percent of the Young 2 output. However, Minnkota has an agreement with Minnesota Power to buy back an increasing allocation of the output from Minnesota Power. Minnkota began receiving 72.5 percent of the Young 2 output in June 2014 and will receive 100 percent by 2026.

The additional capacity and related energy will help Minnkota meet its future power supply requirements until at least 2030.

Because Minnesota Power, in what is known as the Young 2 Deal, purchased the Square Butte 465-mile, Center to Duluth direct current (DC) transmission line to deliver wind energy to its service territory, Minnkota needed a replacement line to deliver Young 2 output to its service territory. So Minnkota built the $352 million, 250-mile Center to Grand Forks Transmission Line – put in service in 2014.

The control room is the nerve center of the Young Station. Computers allow operators like Dave Schwinkendorf (left) and Brandon Zinne to monitor and control plant equipment used in the production of electricity.

The production **of electricity**



Lignite coal is transported in as large as 240-ton haulers from the nearby Center Mine to the plant site, where it is dumped into underground hoppers and moved along feeder chains to the primary crusher.

Creating electricity is as simple as moving a magnet past a wire. However, the actual production process at the Young Station is much more complex.

Control room

The entire generating process is monitored and controlled from the Young Station control room – the operational nerve center of the plant. From here, operators monitor the boilers, turbine generators and other plant equipment used in the production of electricity 24 hours a day, 365 days a year.

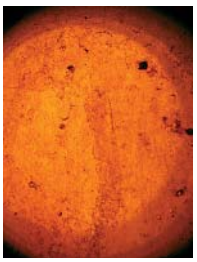
Advanced instrumentation and control systems enable operators to view and control many of the plant processes without having to leave their locations. Monitors display levels, flows, temperatures and electrical outputs. Should an abnormal condition occur, an alarm will sound alerting the operator to the source of the trouble.

Lignite coal fuels cyclone-fired boilers

The Young Station's fuel source – lignite coal – is mined and transported from the nearby Center Mine to the plant site and dumped into the primary crusher, which reduces the up to 3-foot size chunks of coal into 8-inch pieces. Next, the coal passes through the secondary crusher, further reducing its size to 1¼-inch pieces.

The coal is then directed to active storage facilities, where it awaits transport into the plant. When needed, the coal is conveyed to storage silos, and, as required, fed through the fuel conditioners/crushers, where it is crushed to ¼-inch size pieces on its way to the boiler cyclones.

To increase boiler efficiency, the coal is moved through coal transport lines from the fuel conditioners/crushers using high-velocity, 750-degree air. This process removes as much moisture as possible from the coal before it enters the cyclones. Here it is mixed with heated air and combustion occurs, resulting in a temperature of up to 3,000 degrees Fahrenheit.



The combustion process in the boiler produces heat, which boils water in vertical pipes along the walls and top of the boiler, turning it to steam. The exhaust gas from the boiler is cleaned by the plant's emission control devices and is then vented to the atmosphere through the chimney. The visible portion of the plume above the chimney consists mostly of condensed water vapor.

After the coal is crushed, it is conveyed to storage piles for use at the Young Station.

The cyclone furnace was developed to burn low-grade coal in a cyclonic action to overcome ash slagging on heat transfer surfaces.

Not all coal is suitable for cyclone-firing. The ash formed by the coal when burned must have a moderately low ash-melting temperature to flow freely. Much of the lignite mined near the Young Station has this characteristic.

Lignite coal contains about 38 percent moisture and 10 percent ash. Fifty percent of the

Each of the two units at the Young Station has a turbine generator. Inside each generator, a huge spinning magnet surrounded by coils of copper wire creates a magnetic field which, in turn, creates a flow of electricity.

ash produced during combustion is called bottom ash and is removed as a molten slag that flows out the bottom of the boiler.

Water systems

Water from Nelson Lake is used for several purposes in the plant. Some is treated to make ultra-pure water for use in the plant boilers. Some is used as-is for plant purposes not requiring additional treatment. A very large quantity (about an acre-foot per minute) is screened and continuously circulated through the plant for cooling purposes. Cooling is necessary to condense the steam that has passed through the turbine, allowing the turbine to run at maximum efficiency.

The quality of water discharged from the plant must meet standards set by the facility discharge permit, which is issued by the North Dakota Department of Health. Various treatment methods are employed to ensure discharge water quality meets the standards, including sedimentation basins, a wastewater treatment facility and a sewage treatment facility.

Senior Manager of Power Production Gerry Pfau coordinates production at the Milton R. Young Station, which consistently ranks as one of the lowest-cost, coal-fired electric generators in the United States.

The plant laboratory technicians sample the water discharges on a weekly basis. Analyses are performed at both on-site and off-site laboratories. Results are reported to the agency on a monthly basis.

Turbine generator

The high-pressure, superheated steam produced in the boiler may reach more than 1,000 degrees Fahrenheit. It travels at a rate of 10,000 mph through the turbine, causing its blades to spin at 3,600 revolutions per minute (rpm). The spent steam then leaves the turbine, is cooled and condensed back to water, and is pumped back into the boiler. After being reheated, the entire cycle is repeated.

The spinning turbine blades rotate a shaft, which turns a large magnet in the adjacent generator. As the magnet passes stationary wire coils in the generator, an electric alternating current is produced.

Because of their sensitivity, each of the turbine generators is mounted on its own foundation and floor. This guards against vibration from other plant equipment and structural shifting that might affect its operation.

Transmission system

The electricity generated is sent to the main transformers on the plant site and stepped up to a higher voltage. It then moves to a switchyard where it enters the transmission grid through high-voltage transmission lines.

The electricity produced in Young 1 is stepped up to 230,000 volts and ultimately to 345,000 volts before it is sent over a 214-mile alternating current (AC) transmission line to the Maple River substation near Fargo, N.D.

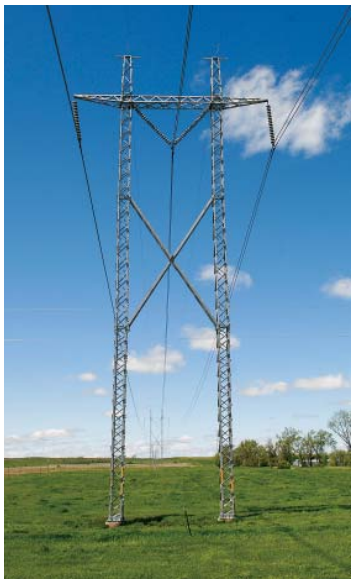
From this point, the voltage is stepped down and the electricity is delivered to substations in the Minnkota service area. The electricity is then sold to the 11 distribution cooperatives who supply the power on their own lines to their customers.

New line for Young 2 output

In 2014 Minnkota began receiving an increasing allocation of the Young 2 output, which is being delivered to the Prairie substation using the new Center to Grand Forks 345-kilovolt transmission line.

The 250-mile, $352 million line helps the northern Red River Valley service area with additional voltage support.

This major addition to Minnkota's transmission system revolves around the Young 2 Deal. With 227.5 megawatts of additional capacity available, the Center to Grand Forks line is a necessity to ensure that Minnkota will continue to provide safe, reliable and affordable electricity.



Electricity generated by Young 1 travels 214 miles along an alternating current 345,000-volt transmission line to the Maple River substation near Fargo, N.D.

The new Young 2 chimney (right) was constructed to handle the wet flue gas produced by the unit's scrubber. The old Young 2 chimney was then modified for Young 1 to use.

Environmental **upgrades**

Environmental requirements applicable to the Young Station originate primarily from operating permits granted by regulatory agencies, and from laws and regulations promulgated by the United States and the state of North Dakota.

Minnkota is committed to environmental stewardship, and to maintaining 100 percent compliance with all regulatory requirements.

Environmental investment

Minnkota made a major investment of more than $425 million in environmental upgrades from 2006 to 2011 at the Young Station.

The primary upgrades were environmental controls for sulfur dioxide (SO_2) and nitrogen oxides (NO_X) on both units. The Young Station installed equipment that achieves a minimum of 95 percent reduction in SO_2 emissions and 55 to 60 percent reduction in NO_X emissions. The capital investment to remove SO_2 was $260 million and the NO_X controls cost $34 million.

Additional infrastructure to support the new systems required $132 million in electrical improvements.

SO_2 removal

To accomplish the required SO_2 removal, Minnkota installed a wet flue gas desulfurization (FGD) scrubber on Young 1 and upgraded the existing FGD scrubber on Young 2.

Coal contains sulfur, and the combustion process forms SO_2. When coal combustion exhaust gas (also called flue gas) passes through the scrubber's absorber vessel, a water and lime slurry mixture is sprayed through the gas stream. The SO_2 in the flue gas reacts with the lime to produce gypsum sludge, effectively "locking up" the SO_2 and forming a common mineral. This process results in the annual removal of about 50,000 tons of SO_2, more than 95 percent of the SO_2 produced in the boilers.

The gypsum sludge is sent to a disposal cell, where water and gypsum solids separate by settlement. The water then returns to the scrubber for reuse, and the solids remain in the disposal cell.

The cells are permitted for use by the North Dakota Department of Health Solid Waste Program. The cells are lined with composite liners comprised of two parts – a constructed clay liner and a high-density polyethylene (HDPE) plastic liner. The facilities are equipped with groundwater monitoring systems, are inspected regularly, and are required to be cared for 30 years after closure. The lime quantities needed for SO_2 removal required construction of two 2,700-ton silos built to receive, store, prepare and distribute the lime reagent. The system includes two vertical ball mill slakers and lime slurry tanks to ensure that product is available to the scrubbers when needed.

The wet, scrubbed flue gas that is released from an SO_2 scrubber also required a new 550-foot tall chimney for Young 2 and major improvements to the old Young 2 chimney, which was retrofitted and re-employed for use by Young 1.

NO_x reduction

Minnkota's other environmental upgrades focused on NO_X reduction. NO_X is formed during the combustion process in the boiler when nitrogen gases (from combustion air) combine with oxygen at

(Left) The Young Station's electrical distribution system was completely overhauled to support the environmental control upgrades.

(Middle) Two 2,700-ton lime silos were constructed for receiving, storing, preparing and distributing the lime reagent needed in the removal of sulfur dioxide.

(Right) Part of the new nitrogen oxides reduction project was the installation of Over-Fire Air ductwork and lines.

high temperatures.

There are two methods to reduce NO_X that are being employed at the Young Station. Both units are equipped with Over-Fire Air (OFA) and Selective Non-Catalytic Reduction (SNCR) systems.

OFA is a process that diverts a portion of the combustion air from the cyclones, creating a fuel-rich atmosphere in the lower furnace. This limits the amount of NO_X created in the cyclones due to the reduced amount of available oxygen. The diverted air is then reinjected back into the furnace at a higher elevation and lower temperature setting to complete combustion.

SNCR is a process in which a mixture of urea and water is injected directly into the upper furnace through a series of ports and nozzles. The urea solution reacts with NO_X that has already formed, breaking it down to nitrogen, carbon dioxide and water.

Mercury control

Minnkota is on pace to achieve a 55 to 60 percent reduction of mercury by employing Clean Coal Solutions technology, and by employing halogen and activated carbon injection. Halogen, such as calcium bromide, serves to oxidize the mercury to allow it to be adsorbed by activated carbon, which is injected into the flue gas prior to the electrostatic precipitator. The mercury is then captured along with the fly ash in the precipitator; however this is done at such a low concentration that it is not detrimental to any use of fly ash, including disposal.

Water quality

In 1986, Minnkota spent about $25 million on Young Station waste water treatment facilities to ensure compliance with the Clean Water Act. All water used in plant processes is tested and treated to confirm that its quality meets all prescribed standards for discharge.

Other on-site water discharges, such as rain and snow runoff, are handled through settling basins. This water is also tested. All water discharged into Nelson Lake is determined to be of acceptable quality as defined by the facility discharge permits.

Coal ash handling

The Young Station's coal ash disposal methods are environmentally protective, safe and closely monitored by Minnkota and state governing bodies with jurisdiction over the permitting programs. Two forms of ash are produced at the Young Station: fly ash and bottom ash.

Fly ash is collected from the flue gas by electrostatic precipitators. These precipitators have a removal efficiency in excess of 99 percent to meet state and federal emission standards of 0.030 pounds of particulate per million Btu heat input. A portion of the fly ash is sold for use as an absorbent material to a commercial permitted landfill operation.

Bottom ash flows as molten slag to the base of the boiler. About 170,000 tons of bottom ash are produced each year at the Young Station, where it is either used by Minnkota or BNI Coal, sold or donated to the state and county road departments.

Most of the bottom ash is sold to a company that recycles it to make sandblast media and roofing granules. Minnkota uses a significant amount for dust control in waste sites and pond and pipeline construction. BNI also uses a significant amount on mine roads.

The Square Butte Creek Golf Course near the plant uses donated bottom ash for its sand traps.

Liberty, an electric dragline with a 77-cubic yard bucket, removes overburden from the coal seam. Its boom length is 355 feet or longer than a football field.

The mining **of lignite coal**

Lignite coal is loaded into 180- to 240-ton haulers and transported directly to the plant site. New 240-ton trucks will be needed beginning in 2014.

In the early 1960s, Minnkota obtained coal reserves for the Young Station that covered about 16,000 acres in Oliver County, N.D., containing 155 million tons of lignite. These leases were assigned to the predecessor of BNI Coal.

Today, the state of North Dakota has about 25 billion tons of coal reserves, including 500 million set aside for Minnkota by BNI.

With more than 70 years of operating experience in the lignite industry, BNI has the distinction of consistently being one of the lowest-cost producers to a major lignite user in the state. BNI began operating in 1930 as Baukol-Noonan, with operations near Noonan, N.D. In 1988, Baukol-Noonan became a wholly owned subsidiary of Minnesota Power.

BNI has coal supply agreements with Minnkota and Square Butte until 2037.

Each year, BNI supplies the two units at the Young Station with about 4.5 million tons of coal, which is equivalent to approximately 210 mined acres per year.

The mining and permitting process is long and laborious. Volumes of pre-mining data are compiled and submitted to the

North Dakota Public Service Commission for review.

After permit approval, large rocks are removed from the area to be mined and dams are constructed to control runoff and sediment. Once scrapers remove the topsoil and subsoil, the soils are segregated and stockpiled or directly spread on prepared areas.

Large electric walking draglines remove the overburden from the coal seam. BNI operates three draglines, including one with a 77-cubic-yard bucket.

Two coal seams are found 25-140 feet below ground level and average about 14 feet in total thickness. Tracked dozers rip the coal, which is loaded into 180- to 240-ton coal haulers with an electric loading shovel or front-end loaders. The coal is then transported to the coal crusher at the plant site.

When mining is finished, BNI replaces the overburden and shapes and contours the area to its final topography. The subsoil and topsoil are replaced, surface rocks are removed and the area is revegetated according to the approved plan.

After the coal is harvested, BNI restores the land to its original or better condition with native plant species reestablished. This grazing antelope is one example of how generating electricity is compatible with the environment.

Reclamation

Minnkota and BNI Coal are dedicated to properly reclaiming all land disturbed by the mining of lignite coal for the Young Station.

Sound land use and reclamation practices are employed at the Center-based BNI mine. Converting lignite to electric energy requires only a temporary disturbance of the land.

North Dakota has one of the best reclamation laws in the nation, which is administered and enforced by the North Dakota Public Service Commission.

All phases of reclamation are conducted with the approval of the PSC. Every acre mined is restored to better than original condition. Before bond release, BNI must statistically prove that the land is reclaimed to a level of production equal to or greater than that which existed prior to mining.

Depending upon vegetation establishment, the reclaimed areas are managed by BNI and the landowner in a joint effort. However, the land must remain under a performance bond for a minimum of 10 years from the date of initial seeding. BNI's land reclamation costs average $20,000 per acre.

Nelson Lake is a popular recreational area for fishing and water sports enthusiasts.

The making **of Nelson Lake**

The warm water discharged from the plant means Nelson Lake rarely freezes, making it unique among North Dakota's lakes.

Nelson Lake is a 2.5-mile-long, man-made reservoir created in 1968 with a 45-foot high, earth-filled dam. The 415-surface-acre lake grew to 660 surface acres in 1977 when Young 2 came on line and the impoundment was made 8 feet higher.

The site for the lake, created by an earthen dam across Square Butte Creek, was selected because the Young Station requires a large supply of water for cooling, boiler makeup and other station uses in the power production process.

To better manage lake levels, Minnkota augments the normal water supply from the Square Butte Creek watershed with Missouri River water. Minnkota operates a pumping station on the south bank of the Missouri River and runs a 13-mile, 30-inch diameter pipeline from the river to the lake. This is especially beneficial during drought or low runoff periods.

The warm water discharged from the Young Station means Nelson Lake rarely freezes, making it unique among North Dakota's lakes for fishing and year-round water sports.

Because of the warmer water temperatures, Nelson Lake is a popular recreational area for fishing, swimming, boating and water skiing enthusiasts. It is home to some of the state's largest crappies and largemouth bass, including record-size catches. The lake also has many bluegills, sunfish, bullheads, northern pike and perch.

Public areas along the lake are used for camping, boating, picnics and other recreational purposes. Minnkota granted the North Dakota Game and Fish Department an easement ensuring public access to Nelson Lake. This was necessary before the lake could be placed under the Game and Fish Department's fisheries management program.

The nine-hole Square Butte Creek Golf Course is adjacent to Nelson Lake. Minnkota leased the land for the course to the city of Center and Oliver County park boards. It was developed through a cooperative effort of community-spirited organizations and individuals, businesses and government entities.

Nelson Lake Statistics

- Dam Construction: Earth filled; 53 feet high, 2.5 miles long.
- Volume of Dam: 382,000 cubic yards fill.
- Service Spillway: Two 215-foot conduits containing two 10-by-10-foot gates, one 2-by-5-foot gate, one 6-inch gate.
- Spillway Construction: 35,000 cubic yards steel-reinforced concrete.
- Size of Lake: 660 acres; 10,500 acre feet.
- Watershed Area: 137 square miles.
- Watershed Runoff: 9,000 acre feet per year, average.

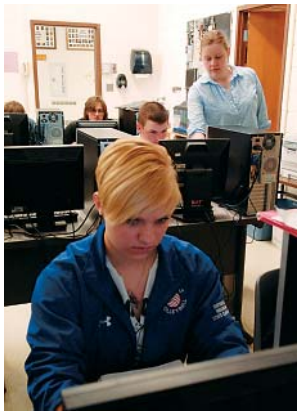
The community **of Center**

Before Minnkota's arrival on the scene, Center, like many small communities in North Dakota, owed its existence to agriculture, the primary industry of the region. Since the early 1970s, the Center area has also been home to the Young Station. The small, rural community, approximately 40 miles northwest of the capital city of Bismarck, is the county seat of Oliver County.

Center is a community with a population of about 575, more than one-third of the county's 1,800 residents. Center and the Oliver County area are home to almost one-third of the 160-plus employees working at the Young Station. Oliver County consistently ranks in the top five of the highest-paid counties in North Dakota based on average annual wage.

Center maintains a dentist, and the Coal Country Community Health Center in the downtown area remains staffed by a nurse from the Beulah clinic. The community has the protection of a volunteer fire department and an ambulance service.

A civic center and the county courthouse are two other examples of Center's fine



The public school system in Center provides the area's youth with academic, athletic and social opportunities.

community facilities. The civic center, constructed in 1981 and expanded in 1991, includes a community room suitable for dances and other large gatherings, a racquetball court, city offices and additional meeting rooms for public use. The courthouse and the senior citizens center play an active role in the community as well.

The Center-Stanton school system is another strength of the community.

The elementary school was built in 1956 and the high school in 1967, with additions in 1978 and 1981. Center residents are proud of their school system and indoor swimming pool, which was built in 1980. The pool was financed with bonds, a federal grant and a loan from the state coal impact fund. The city operates the facility for the public, making it available to the school's physical education program.

The city is home to several businesses, including a bank, taverns, beauty shops, a gas station with an expanded convenience store, a machine shop, a fitness facility, a cabinet craftsman shop and an automotive repair shop.

The establishment of an 80-acre industrial park on the southwest edge of town is an example of Center's economic development efforts. The industrial park houses the automotive repair shop, a machine shop, rental storage facilities, a North Dakota Department of Transportation shop and a trucking company.

Center remains a thriving community, thanks to a quality work force and ongoing energy development in the region.

Associated **systems**

Distribution Cooperatives

Beltrami Electric Cooperative
Bemidji, Minn.

Cass County Electric Cooperative
Fargo, N.D.

Cavalier Rural Electric Cooperative
Langdon, N.D.

Clearwater-Polk Electric Cooperative
Bagley, Minn.

Nodak Electric Cooperative
Grand Forks, N.D.

North Star Electric Cooperative
Baudette, Minn.

PKM Electric Cooperative
Warren, Minn.

Red Lake Electric Cooperative
Red Lake Falls, Minn.

Red River Valley Cooperative Power Association
Halstad, Minn.

Roseau Electric Cooperative
Roseau, Minn.

Wild Rice Electric Cooperative
Mahnomen, Minn.

Municipal Utilities

Bagley Public Utilities
Bagley, Minn.

Baudette Municipal Utilities
Baudette, Minn.

Fosston Municipal Utilities
Fosston, Minn.

Grafton Municipal Utilities
Grafton, N.D.

Halstad Municipal Utilities
Halstad, Minn.

Hawley Public Utilities
Hawley, Minn.

Park River Municipal Utilities
Park River, N.D.

Roseau Municipal Utilities
Roseau, Minn.

City of Stephen Municipal Utilities
Stephen, Minn.

Thief River Falls Municipal Utilities
Thief River Falls, Minn.

Warren Municipal Utilities
Warren, Minn.

Warroad Municipal Utilities
Warroad, Minn.

In addition to meeting the electric power supply needs of the 11 member-owner distribution cooperatives, Minnkota is also the operating agent for the Northern Municipal Power Agency (NMPA), an organization of 12 municipal utilities in the same region. Together, the distribution cooperatives and municipal utilities serve nearly 140,000 customers.


MPC

MRY Station

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Your Touchstone Energy® Partner

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