

CapX2020

Building Electric Transmission We All Will Rely On

Central Minnesota Municipal Power Agency
Dairyland Power Cooperative
Great River Energy
Minnesota Power
Minnkota Power Cooperative
Missouri River Energy Services
Otter Tail Power Company
Rochester Public Utilities
Southern Minnesota Municipal Power Agency
Wisconsin Public Power Inc.
Xcel Energy

Need for Reliable Electricity Rises with Demands

Why do we need to expand the electric transmission grid? The simple answer is because we're using more electricity – far more – than we did even a few years ago.

Minnesota and the surrounding region are experiencing tremendous job and population growth, leading to a steady increase in electric usage – a rise of nearly 250 percent between 1980 and 2005. Our electricity demand has risen in proportion to the growing number of electronic items and appliances we depend on and to the increasing size of our homes. While our use of electricity has increased, our expectations have remained constant: we expect reliable power when we need it.

Meanwhile, our electric transmission grid hasn't undergone a major upgrade in 30 years. CapX 2020's proposed transmission lines will address these growing electric needs.

Americans are using more electricity

- In 2006, the average household owned 26 consumer electronic products, like DVD players, video game consoles, cordless phones, digital cameras and high-definition televisions. In comparison, the number of these consumer electronic items in the average household in 1975 was less than two. (Consumer Electronics Association)
- The number of homes with a computer continues to skyrocket. More than 75 percent of American homes in 2006 had a computer compared to 40 percent of homes in 1997, and over a third of the computer owners in 2006 had multiple machines.

- Statistics aren't necessary to show the dramatic increase in the number of appliances and electronics found in American homes. Consumers just need to look at their monthly bills. According to the Department of Energy, washers and dryers, computers, water heaters and other appliances and electronics account for 20 percent of the total energy bill in an average U.S. home.
- 'Phantom loads' refers to the energy used by appliances and electronic devices, like TVs, DVD players, microwaves and computers, when they're plugged in but not turned on. In the average U.S. home, 75 percent of the energy used to power electronics is consumed while the devices are turned off. (Department of Energy)

Larger homes use more electricity

- Larger homes use more energy. The average single-family home in the Midwest is almost 40 percent larger today than it was in 1976. (U.S. Census Bureau)
- The percentage of homes with central air conditioning in Minnesota more than doubled in the last 25 years – jumping from 27 percent in 1983 to 66 percent in 2006. ("2006 Xcel Energy MN Home use Study")
- All homes – new and existing – have more electric appliances than ever before. Thirty percent of homes in 1970 had an electric clothes dryer; in 2005 that number more than doubled.

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- Owning a dishwasher used to be a luxury of the well-to-do. In 1970, 19 percent of homes had a dishwasher, but by 2005 that number more than tripled, reaching nearly 74 percent.
- Microwaves are a virtual necessity today with 90 percent of kitchens having one in 2005 versus 25 percent in 1982.

Average homes have more TVs than people

- In 2006, 50 percent of American homes had three or more TVs, a dramatic increase over the one TV owned by 57 percent of households in 1975. (Nielsen Media Research)
- Estimates are that 60 million homes in the U.S. will have at least one widescreen high-definition television by the end of 2007. (In-Stat) According to the *Plasma TV Buying Guide*, a 60-inch plasma uses three times as much electricity as a traditional color TV.
- A TV is turned on for an average of 8 hours and 15 minutes a day in a typical U.S. home, an hour more than 10 years ago.
- We spend \$5 billion annually to power our TVs. In 2010 that number is projected to rise by 75 percent, meaning consumers will pay over \$8 billion annually to run their TVs. (EPA in support of the Energy Star program)
- What's a TV without a DVD player? In less than 10 years (1998-2005), the percentage of homes with a DVD player went from one percent to more than 80 percent.