

Communications infrastructure for the cooperative model

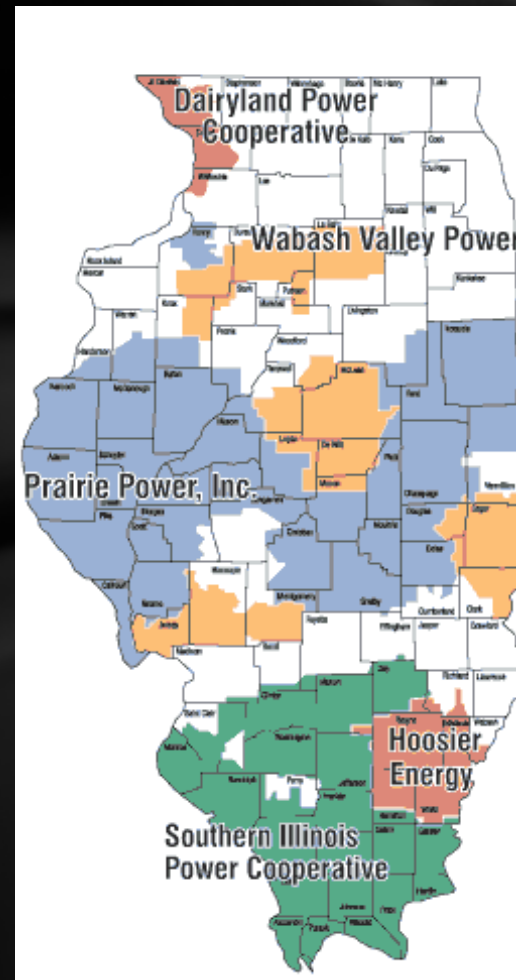
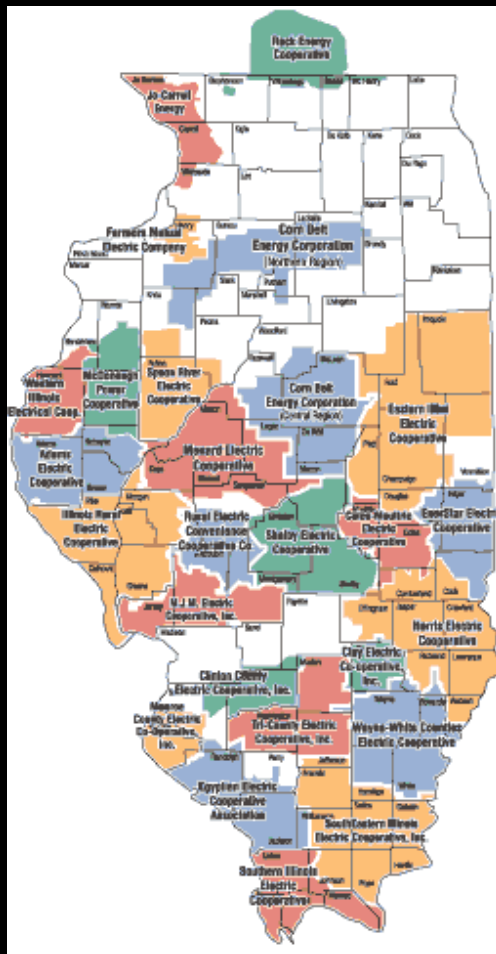
Presented by Edward VanHoose

Association of Illinois Electric Cooperatives

What's a co-op?

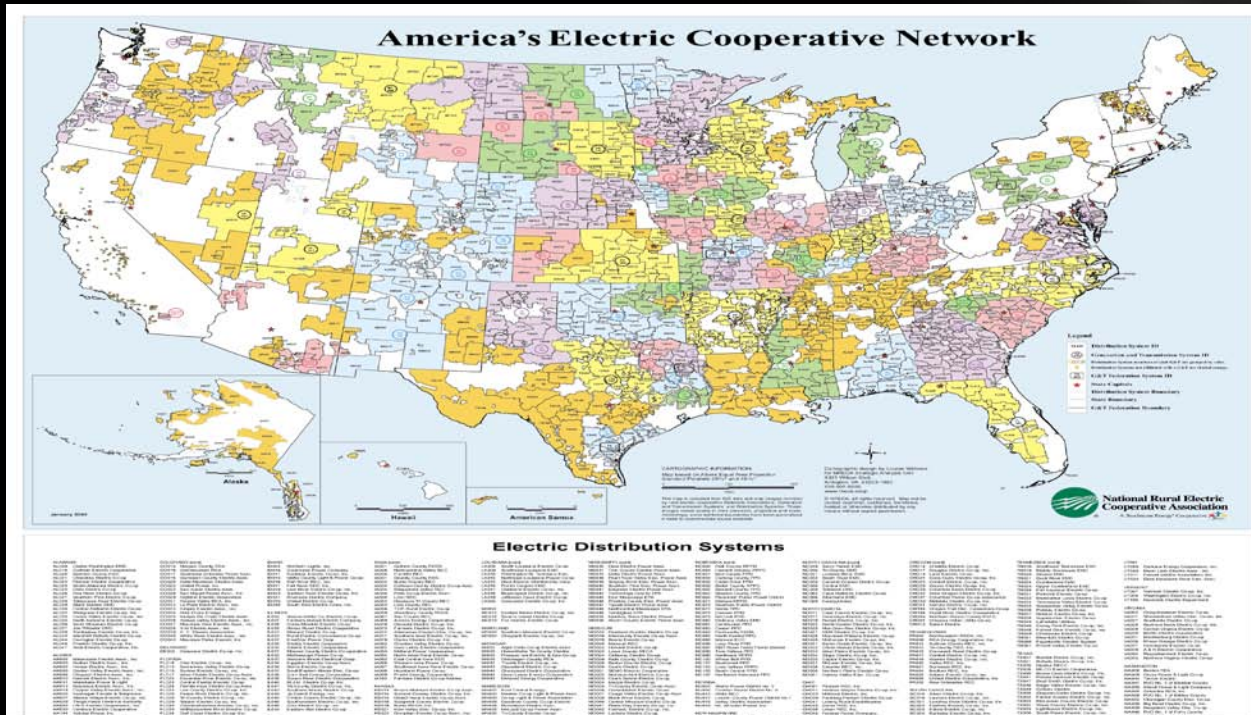
A cooperative is a member-owned and controlled business that operates for the mutual benefit of its members. Cooperatives operate across all sectors of the US economy including agriculture, food distribution and retailing, childcare, credit unions, purchasing, worker-owned, housing, healthcare, energy and telecommunications. Cooperatives promote the fullest possible participation in the economic and social development of all people.

Illinois maps of cooperative presence



In Illinois more than 250,000 families and businesses own and control their local distribution cooperatives.

National map of cooperative presence



More than 900 rural electric co-ops deliver electricity to more than 42 million people in 47 states. This makes up 42 percent of the nation's electric distribution lines and covers 75 percent of our country's land mass.

Communicating over cooperative geography

- We have demonstrated for over 100 years that we can build robust, reliable, and efficient systems for electrical generation, transmission, distribution, and use.
- The new challenge is to use advanced sensor and control technology to derive the maximum value and greatest value from our copper assets.
- *Data Communications* is key to the meeting this challenge. The comms network is the nervous system of the smart grid.

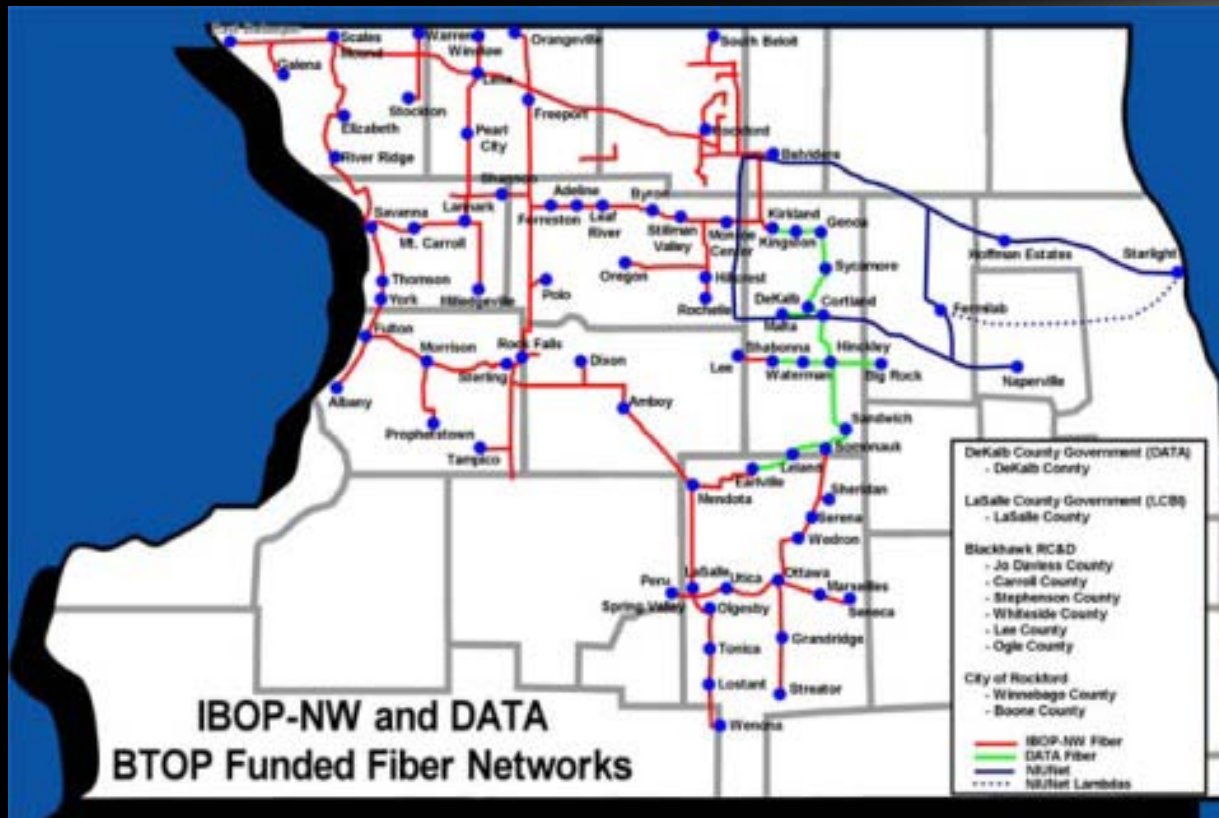
Challenges ahead

- The volume of data will increase by a factor of 10,000 to 100,000 over the current levels
- We have not had adequate dedicated bandwidth for the Future
- The technology is changing rapidly
- The communications technology will not match the usable life of our electrical systems
- Much of our current technology is not adequate or is at end of life
- The role for telecom providers is not clear

So what is the forecast for communications infrastructure in Illinois?

http://www.illinois.net/IBOP/IBOP_EastCentral/IBOP_Partners.html

NIU Fiber Project



Illinois Broadband Opportunity Partnership East Central



Legend

- ★ POP Site
- Wireless
- Latents
- Dial Fiber
- FTL Fiber
- Trunk Fiber



Clearwave middle-mile fiber project

