Appendix G.
Public Scoping Meeting Materials

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CapX2020

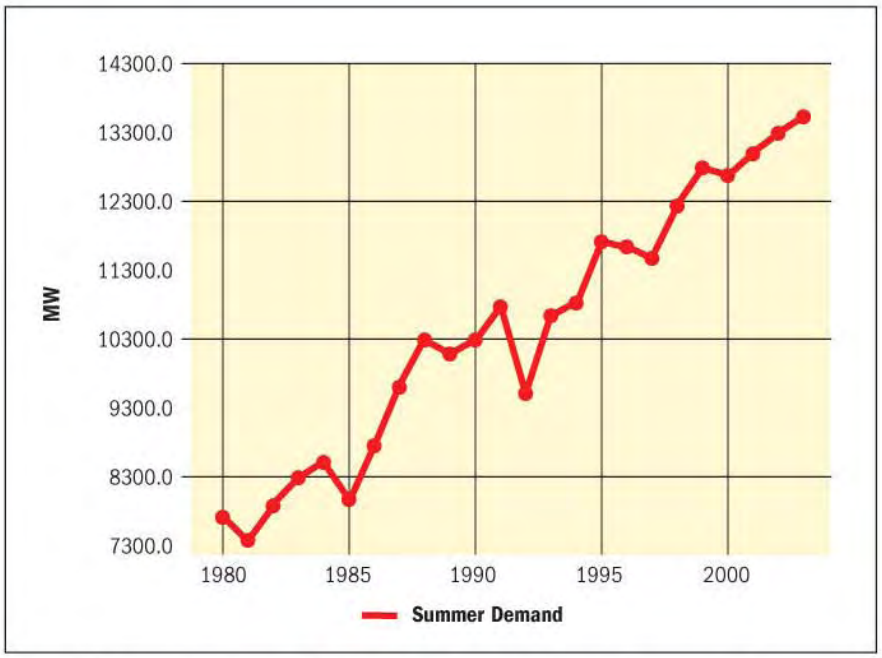
Delivering electricity you can rely on

CapX2020, an alliance of 11 electric utilities, was formed in 2004 to expand the electric transmission grid to ensure continued reliable service. It serves Minnesota and portions of North and South Dakota and Wisconsin.

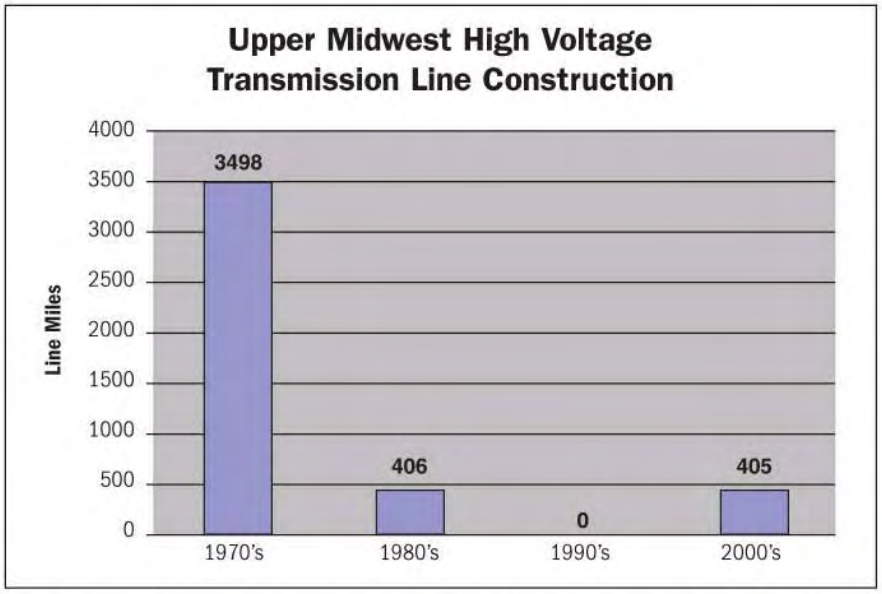
Group 1 projects:

- Four projects totalling 700 miles
- In-service dates 2011-2015
- $1.7 billion investment
- First major upgrade in 30 years
- Delivers reliable affordable electricity to meet local needs
- Increases access to renewable energy sources
- Supports job and population growth

Load growth has out-paced transmission investment



Electricity use in Upper Midwest has grown by 80 percent since the early 1980s



The last major expansion to the regional high voltage transmission grid occurred in the 1970s

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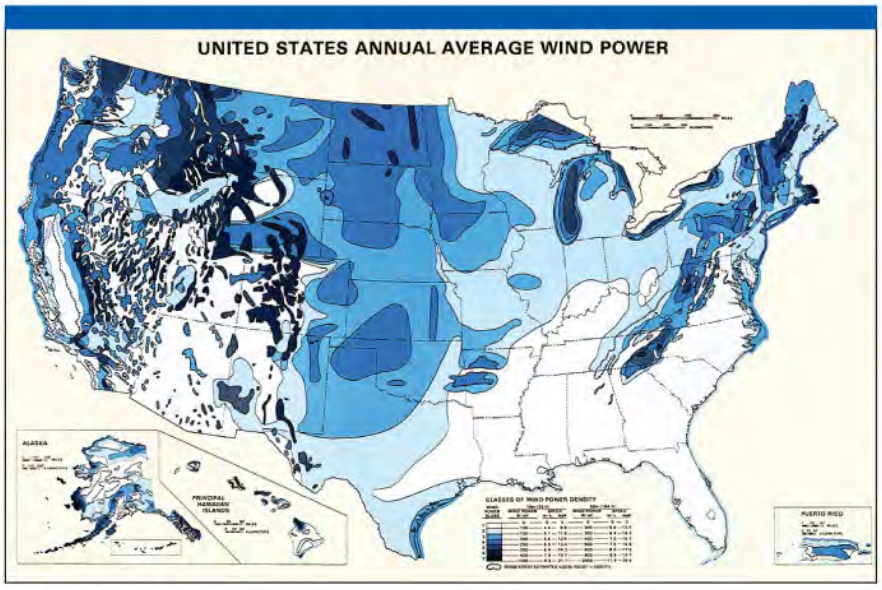
Supporting renewable energy

- Expand transmission capacity for wind energy, particularly in southern and western Minnesota and the Dakotas
- Minnesota Renewable Energy Standard (RES) – 25% by 2025 (Xcel Energy 30% by 2020)
- Wisconsin RES – 10% by 2015 (three utilities at 25%)
- North Dakota RES – 10% by 2015
- South Dakota RES – 10% by 2015
- Possible national RES of 15%



U.S. wind density

Americans using more electricity

- Electricity consumption in Minnesota, North and South Dakota, and Wisconsin has doubled since 1980
- Sub-zero temperatures pushed electricity demand in the Midwest to all-time winter peak in mid-December 2008
- The average Midwest home is nearly 45 percent larger than it was 40 years ago
- More than 80 percent of Americans have a cell phone and most are recharged daily
- A 42-inch plasma TV uses two-and-a-half times more electricity than a standard 27-inch TV

Ways to save energy

- Computer always on? If so, it uses as much power as an energy efficient refrigerator.
- Switch to compact fluorescent light bulbs or LEDs
- Lower water heater temperature 20 degrees
- Use your clothes washer's cold-water cycle
- Install energy and water-saving shower-heads and aerators
- Get rid of the second refrigerator or freezer
- Open window coverings during the day to let in warm sunshine; close coverings at night to keep the heat in and the cold out

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Transmission structures

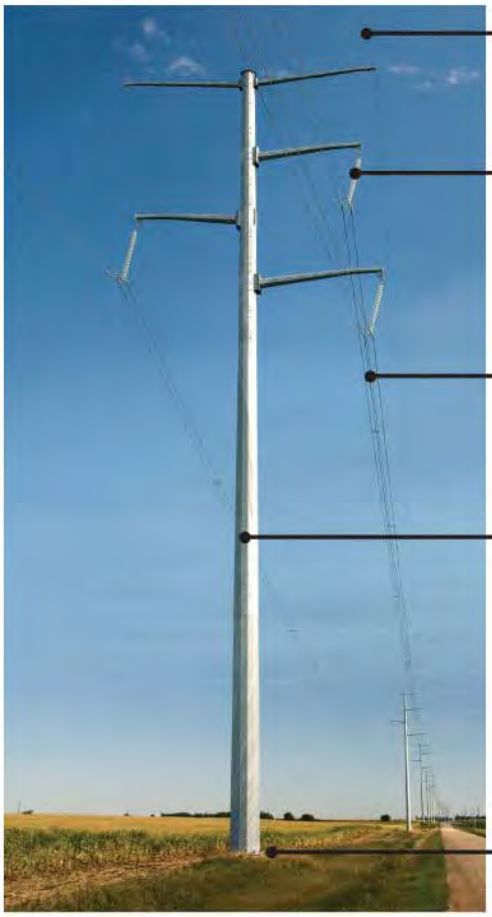
Double circuit single pole structure

- Self-weathering or galvanized steel
- Concrete foundations 6 to 8 feet in diameter
- 105 to 175 feet in height
- 750 to 1100 feet between structures
- 150 foot wide right-of-way

H-frame structure

- Wood or steel
- Embedded directly into the ground
- 100 to 150 feet in height
- 900 to 1200 feet between structures
- 150 foot wide right-of-way

Transmission facilities



345-kV Substation

Transmission construction

- Conductors attach to the structures by insulators that prevent contact between the conductor and the structure, because contact between the two could result in a short circuit.
- The foundation, structure and insulators must be strong enough to support the weight of the conductor and any wind and ice loads.
- Shield wires attached to the top of the structures provide protection against lightning strikes.

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Hampton-Rochester-La Crosse 345-kV transmission line

Transmission lines

- 345-kV transmission line from Hampton to Rochester, Minnesota, to the La Crosse, Wisconsin area
- Two 161-kV transmission lines between a new north Rochester substation and two existing substations in the Rochester area

Substations

- New substations - Hampton and the Pine Island/Zumbrota area
- New substation - La Crosse or near Holmen or Galesville (actual location determined by final route and Mississippi River crossing)
- Existing substation improvements - Northern Hills, Chester, and La Crosse or North La Crosse

Mississippi River crossing

One of three existing transmission line river crossing locations:

1. Alma
2. Winona, or
3. La Crosse/La Crescent area

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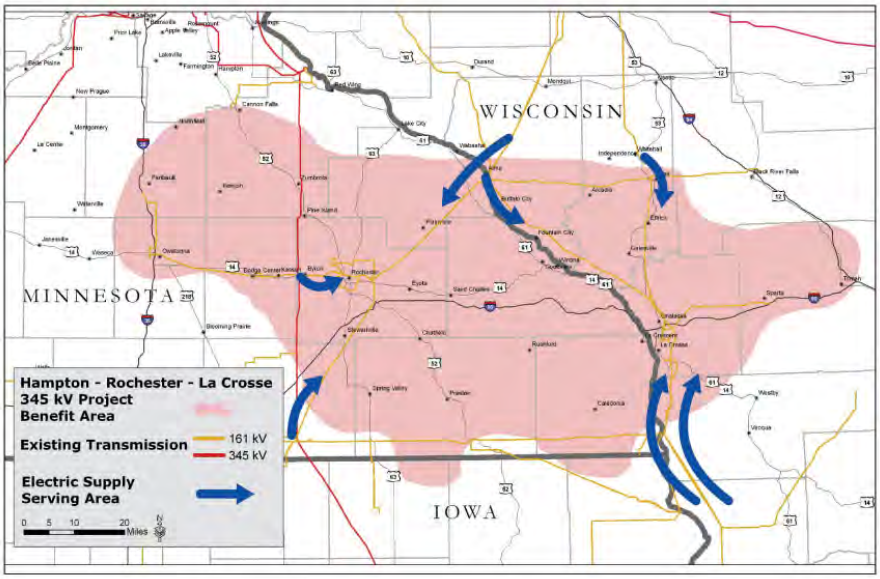
Transmission upgrades meet local needs

Community reliability

The region is served by seven high-voltage transmission lines that are nearing capacity because of increased customer demand



The Hampton-Rochester-La Crosse 345 kV project:

- Provides an additional high-voltage power source to the area, allowing continued reliable service as electricity use grows
- Increases access to additional generation sources, including renewable energy

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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
WPPI Energy
Xcel Energy

Minnesota regulatory process

- Approval required from Minnesota Public Utilities Commission (MN PUC)
- **Certificate of Need** - examines whether lines are necessary and what the appropriate size, configuration and timing of the project should be
  - Application filed (August 2007)
  - Environmental Report public scoping meetings (December 2007)
  - Public hearings presided over by administrative law judge (June-July 2008)
  - Evidentiary hearings presided over by administrative law judge (August-September 2008)
  - Administrative law judge need recommendation (February 27, 2009)
  - MN PUC need approval (April 16, 2009)
- **Minnesota Route Permit** - determines the route and design of the line
  - Application filed
  - Public meetings introducing the project
  - Environmental scoping and routing additions
  - Citizen advisory task force
  - Draft Environmental Impact Statement (EIS) prepared
  - EIS comment period and public meetings
  - Public hearings presided over by administrative law judge
  - Final EIS prepared
  - MN PUC route decision

Contact the
Minnesota Public Utilities Commission at:
www.puc.state.mn.us
1-800-657-3782

office of energy security

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Central Minnesota Municipal Power Agency
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Minnesota Power
Minnkota Power Cooperative
Missouri River Energy Services
Otter Tail Power Company
Rochester Public Utilities
Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

Wisconsin regulatory process

- Approval required from the Public Service Commission of Wisconsin (PSCW); permits may be required from the Wisconsin Department of Natural Resources (WDNR)
- **PSCW Certificate of Public Convenience and Necessity (CPCN)** - determines both need and route
  - Pre-application route development phase
  - Pre-application PSCW and WDNR consultation
  - Application filed and completeness review
  - WDNR permits and CPCN filed concurrently
  - PSCW public notification letter
  - Public intervention

Certificate of Public Convenience and Necessity, cont.

- Environmental scoping and public meetings
- Draft Environmental Impact Statement (EIS) prepared
- Agricultural Impact Statement prepared
- Final EIS prepared
- PSCW-sponsored public hearing
- PSCW decision and route selection
- WDNR permits issued

Contact the Public Service Commission of Wisconsin at:
www.psc.wi.gov
1-888-816-3831

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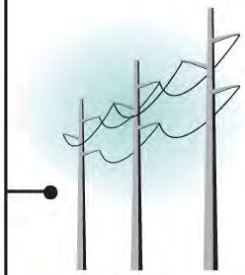
Central Minnesota Municipal Power Agency
Dairyland Power Cooperative
Great River Energy
Minnesota Power
Minnkota Power Cooperative
Missouri River Energy Services
Otter Tail Power Company
Rochester Public Utilities
Southern Minnesota Municipal Power Agency
Wisconsin Public Power Inc.
Xcel Energy

How electricity works

Powering our daily lives seems as simple as clicking on the TV, flipping a light switch or pressing the buttons on our microwave. But producing and delivering reliable electricity to customers is more complex.

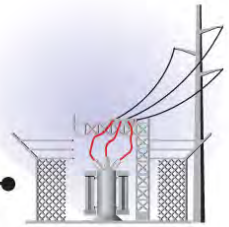
Electricity can't be stored; it has to be generated, transmitted and distributed at the moment you turn on your computer or any other appliance. Travelling at almost the speed of light - 186,000 miles a second - electricity arrives where it's demanded at almost the same moment that it's produced.

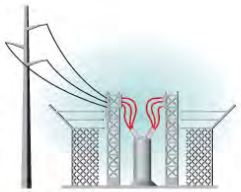
1 POWER SOURCE
Electricity is generated here. Fuel, such as coal, uranium, or biomass heats water, making steam that drives a turbine, creating electrical energy. Power also can be generated from other renewable sources, such as wind. Transformers located near the power source 'step up' the voltage so that electricity can travel long distances.



2 HIGH VOLTAGE TRANSMISSION LINES
Transmission lines deliver electricity over long distances from power sources to transmission substations closer to homes and businesses. Voltage can be as high as 1,000-kV, but the most common high voltage lines are 230-kV or 345-kV.

3 TRANSMISSION SUBSTATION
Transformers at the substation 'step down' the voltage. From here electricity flows to a network of distribution substations closer to end users.

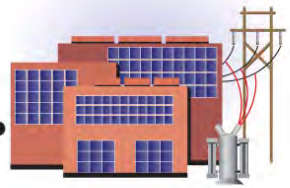




4 DISTRIBUTION SUBSTATION
Transformers here 'step down' the electric energy even further to a lower voltage for distribution over short distances.

5 DISTRIBUTION LINES
These lines carry the electricity to smaller transformers, usually attached to poles, which further reduce the voltage for delivery to homes, businesses and other end users.

6 HOMES, FARMS, SMALL BUSINESSES AND LARGE INDUSTRIAL USERS



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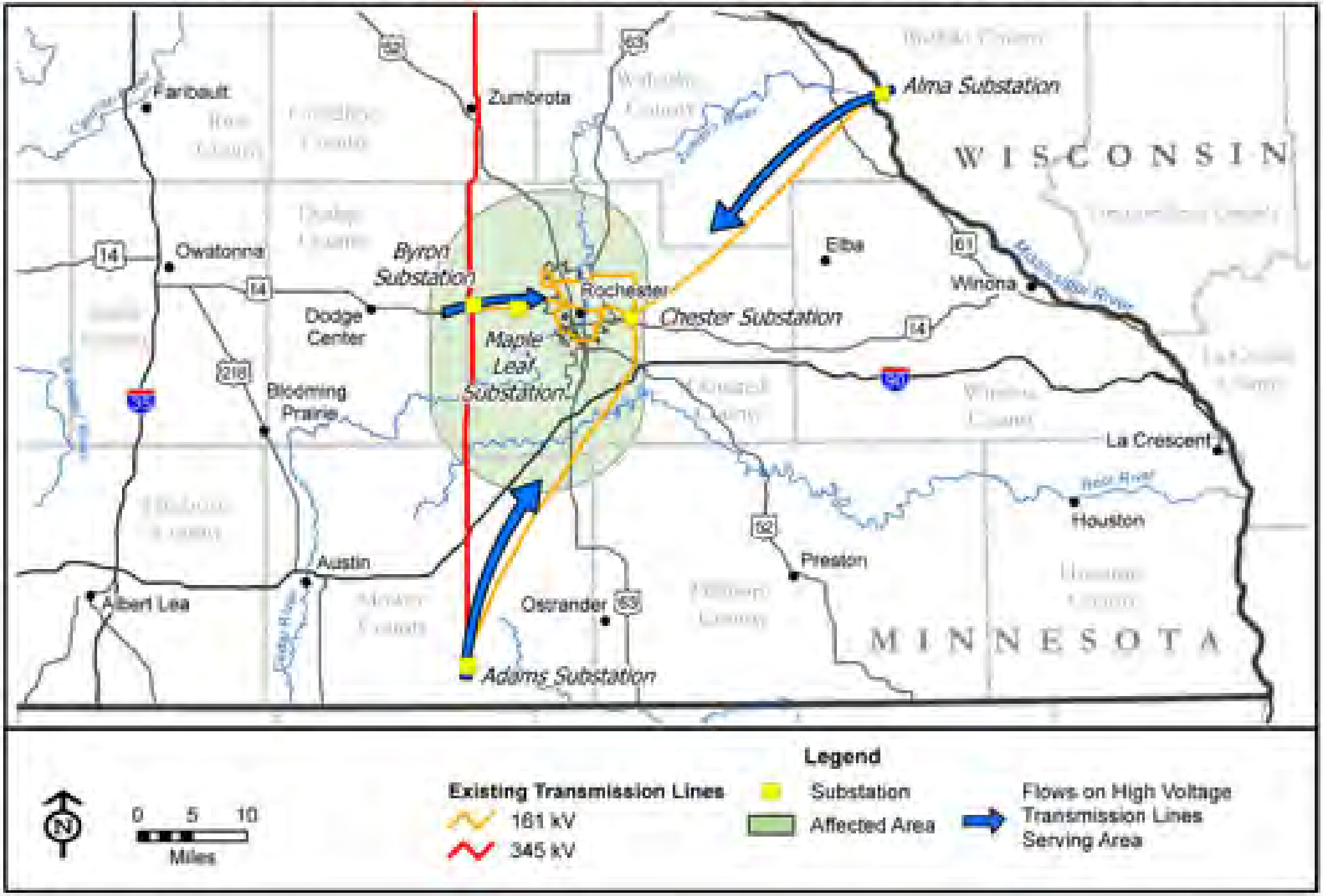
Community Reliability Needs - La Crosse and Winona Area

Community Reliability Needs - Rochester Area



Current and Proposed High Voltage Transmission Lines

How Routes are Developed

Routing a transmission line involves mapping resources, identifying opportunities and constraints and evaluating alternatives. Potential routes for the Hampton-Rochester-La Crosse 345 kilovolt transmission line were identified through macro-corridor development.

Step 1: Preliminary corridor development

Corridors were initially identified for the Minnesota Certificate of Need (CN) process and further refined to preliminary macro-corridors. Corridor development criteria included:

- Proximity to existing transmission and transportation corridors
- Homes and residential communities
- Compliance with regulations related to crossing the Mississippi River
- Minimizing environmental and land use impacts
- Public, stakeholder, and agency input
- Electrical system planning standards

Step 2: Macro-corridor refinement and route options

Preliminary macro-corridors were refined based on field surveys, public and agency input, an environmental resource review, and an opportunities and constraints analysis. To develop route options, existing linear features (e.g., utility and road right-of-way, property boundaries, field lines) were maximized and potential impacts to homes, agriculture, and sensitive environmental resources were minimized.

Step 3: Final macro-corridors and refined route options

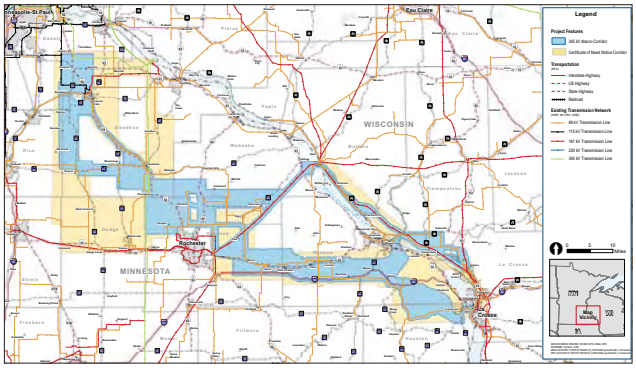
Continued development of route options was based on public input and agency coordination, field verification, and additional data collection. The following steps were conducted:

- A comparative analysis was performed to identify route options with fewer potential impacts
- Route options were eliminated, added, or refined
- Macro-corridors were finalized based on route refinement and public and agency comment

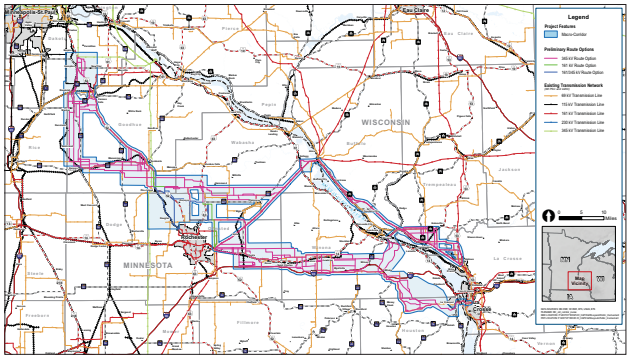
Next steps: Final route options

The next steps involve identifying routes for evaluation in the federal and state permitting processes, considering public and agency scoping comments, and performing additional analysis. These activities will result in:

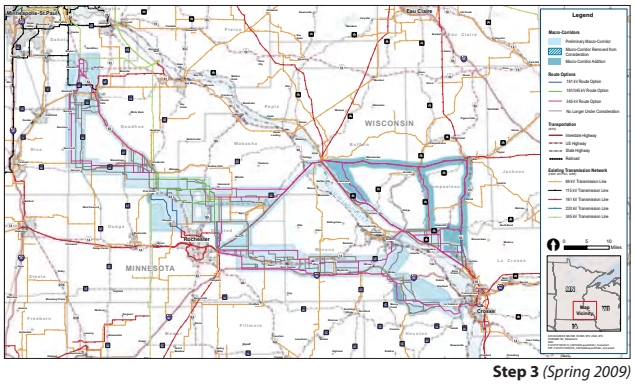
- Proposed action and associated alternatives for the NEPA process
- Preferred and alternative routes for the Minnesota Route Permit application
- Alternative routes for the Wisconsin Certificate of Public Convenience and Necessity application



Step I *(July 2007-May 2008)*

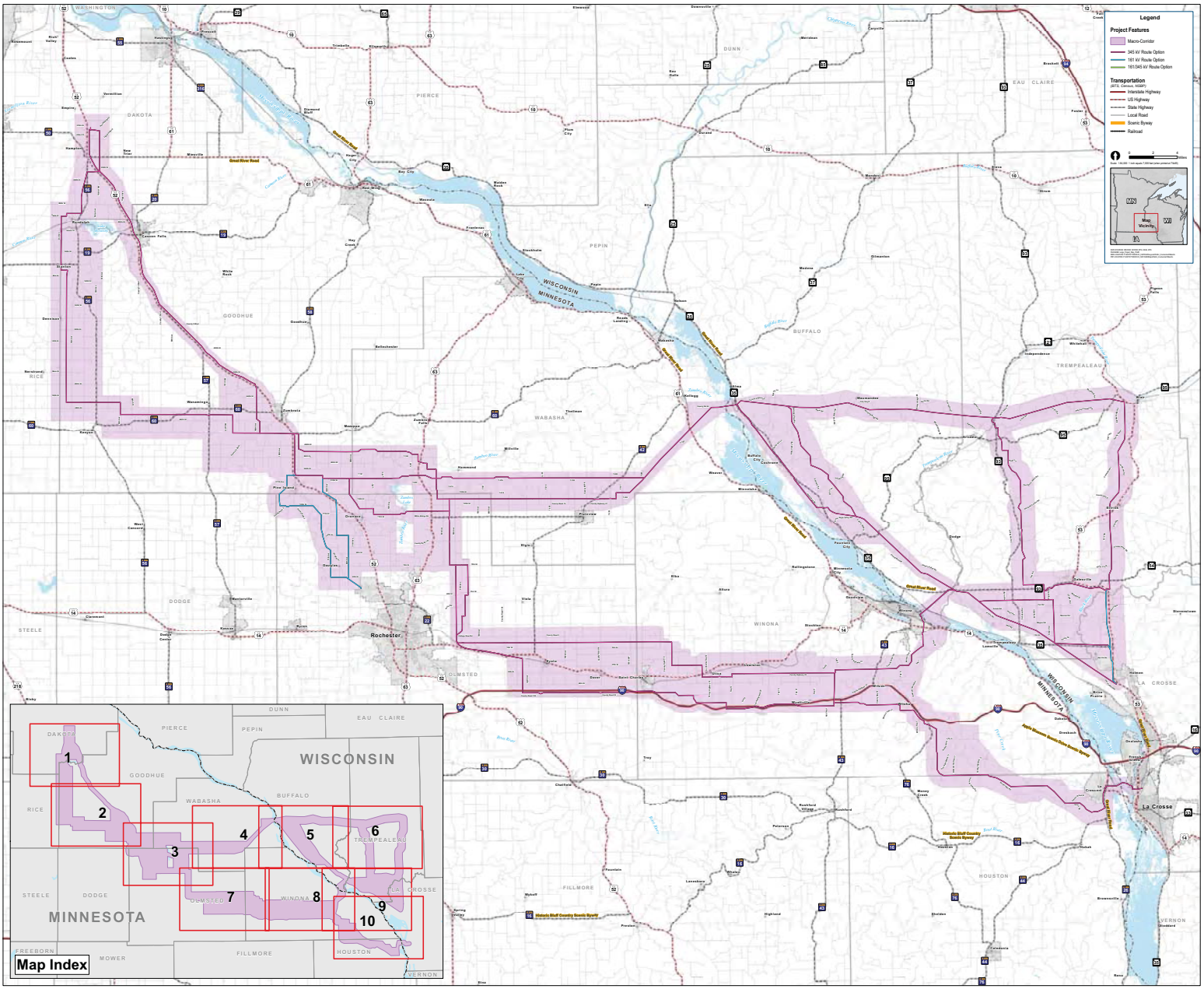


Step 2 *(December 2008)*



Step 3 *(Spring 2009)*

Project Corridors & Route Options



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Hampton - Rochester - La Crosse 345 kV Transmission Project

USDA Rural Development

CapX2020

Delivering electricity you can rely on

What We Heard from You...

Hampton Area Public Comment

- Avoid the Prairie Island Indian Community and the wetlands on their land
- Avoid Nerstrand Woods
- Avoid livestock operations south of Redwing, near Warsaw, MN
- Consider a shared transportation and energy corridor that follows I-90 and Highway 52 north
- The new transmission lines should follow Highway 19 east and west in Northfield, and north and south along Highway 56 or Highway 52
- Poor location of existing poles makes farming land along Hwy 52 a big problem. Not enough space to allow our equipment between ditch and pole, therefore it becomes weed-infested
- East side of Hwy 52 is residential; West side is less densly populated and easier to access
- 60 years ago, the poles were smaller on Hwy 60 between Kenyon and Wanamingo, now larger machinery prevents farming
- Reroute project next to existing road ROWs in Corridor Segment E
- Do not route on Hwy 57
- City of Hampton prefers route to follow east city limits, or east of Hwy 52 in agricultural lands

Rochester Area Public Comment

- Avoid very quickly growing development on the north side of Rochester
- Avoid corridor to the east of Rochester, below 100th street
- Avoid Byron High School and the new bike path they are installing
- Avoid interference with radio signals, especially in the Timber Ridge development, in Olmstead county, near the 161 kV going into Chester Station
- Avoid sensitive resources in Evergreen Acres including:
  - The Minnesota Land Trust and one of the largest preserved areas in Minnesota
  - A broad range of natural land features
  - Non fragmented, critical habitat for wildlife and vegetation
  - Wildlife preservation areas, and rare, endangered, and protected species
  - Nesting and migrating habitat for endangered bird species
  - 160 native bird species
  - Bald Eagles' roosting and nesting habitat
  - High biodiversity and high quality wildlife habitat
  - A corridor for floodplain forest plants and animals to move along the Zumbro River
  - The only stands of mature white pine in Southern Minnesota
  - The Frank's Ford Bridge, a historic bridge included in the National Register of Historic Monments
  - Native American sites
  - Uncommon native plant communities including deciduous woodlands and savannahs

  characterized as Oak Forest- mesic type, Maple-Basswood Forest, and Floodplain forest
- Share corridors with the DM&E railroad in the Rochester area
- Use Highway 52 and the Douglas trail, abandoned railway as routing opportunities
- Avoid a new school being built in Pine island, located at County road 3 and county road 5
- Seek alternative routes north of Olmstead county, between Pine Island and Zumbrota; land north of Zumbrota; or land between northern Oronoco and Pine Island
- A corridor could run north of Zumbrota and Zumbro Falls or North of Pine Island and due east of Highway 52 between 490th Street and 500th Street
- A corridor could route south of Rochester, or north or south of Evergreen Acres
- Use existing transmission lines running to Byron and then east on State Highway 14 as routing options
- Avoid the floodplain areas on Douglas trail; especially from Zumbro River, near County Road 3 to Douglas, MN
- Avoid wetlands and floodplains near the Zumbro River
- Route the new transmission lines north of Olmstead County Road 12
- If the 345kV corridor remains in Evergreen Acres it should cross the Zumbro River at the 75th street bridge or at the bridge located on CO Rd 12 at Sandy Point
- The two 161kV lines could go south along 18th avenue and Highway 63 in Rochester, MN
- Consider routing one 161 kV SE though the fields to Highway 63, then south, and the other should follow Highway 52 south into Rochester
- Consider a shared transportation and energy corridor that follows I-90 and Highway 52
- South of Hwy 52 in Pine Island area, the Elk Run development should be avoided
- Beware of Grasslands north and east of Rochester, and south of 100th St near 18th Ave
- Reroute project through less populated areas near Rochester
- Consider using a corridor north of Lake Zumbro to avoid congested areas to the South

Alma Area Public Comment

- Follow existing transmission line river crossing from Alma, WI to La Crosse, WI
- Avoid Whitewater State Park and the natural habitat areas

Winona Area Public Comment

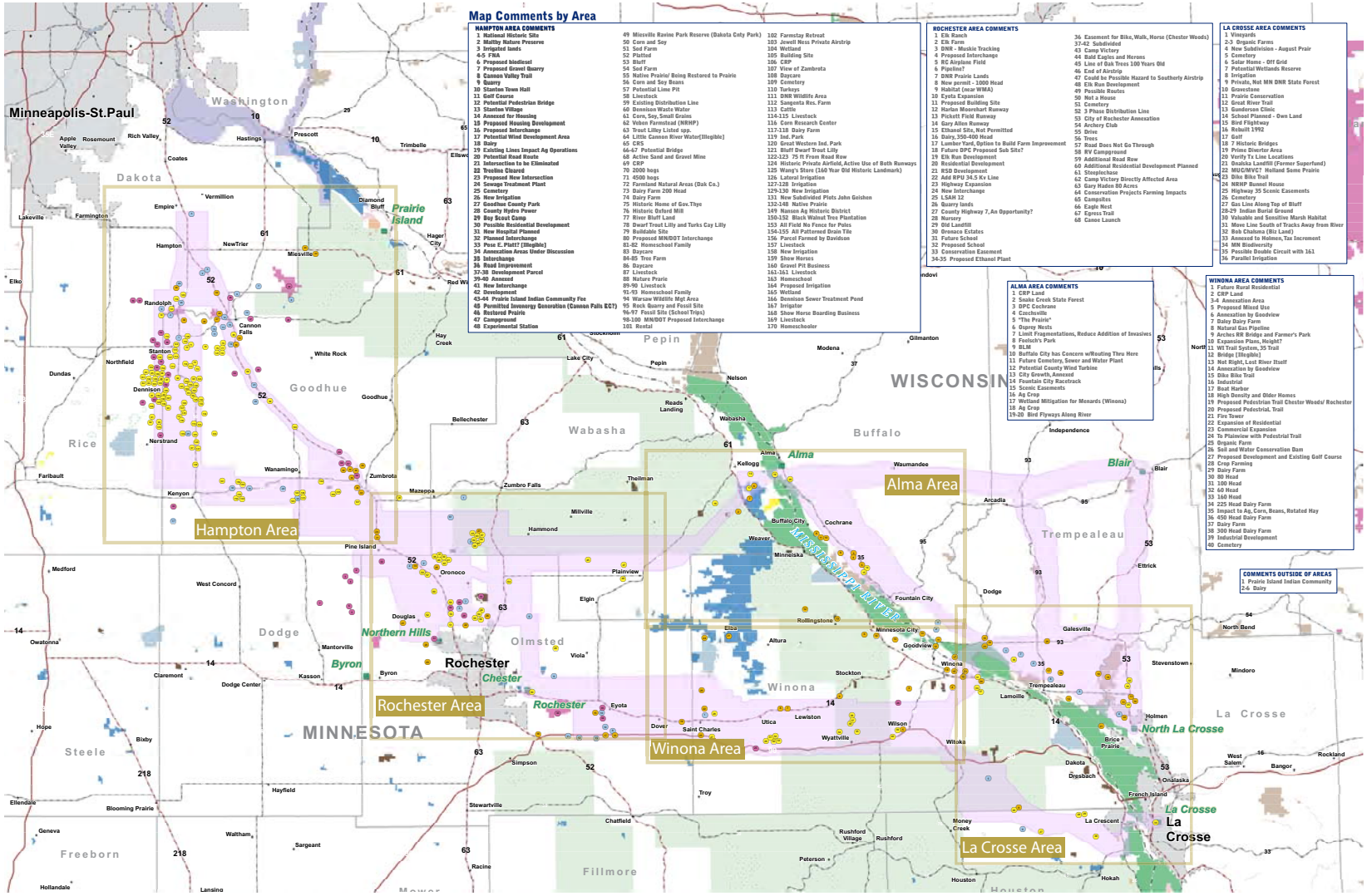
- Avoid floodplains in Winona, MN
- Avoid the Federally designated scenic byway, Apple Blossom Scenic Drive, in Winona County
- Consider a shared transportation and energy corridor that follows I-90 and Highway 52 north

La Crosse Area Public Comment

- Avoid crossing the Trempealeau National Wildlife Refuge with the transmission line because it's an important flyway and bird migration corridor, the large towers threaten to kill birds by collision
- Avoid economic impacts to the tourism economy in the area, by avoiding crossing the Trempealeau National Wildlife Refuge a scenic river valley
- Prefer the Le Crescent river crossing because it's not within the Trempealeau National Wildlife Refuge
- Avoid Trempealeau, WI with the transmission line because the effects to the scenic beauty
- Consider a shared transportation and energy corridor that follows I-90 and Highway 52 north
- Avoid Fieldstone Terrace, town of Holland, Wisconsin
- Follow FAA part 77.25 when dealing with clearance/approach areas of airport at Amsterdam Prairie Road and Hanson Drive
- Routes should be far away from LaCrescent ; consider routing near brownsville, MN
- Avoid Kipp State Park, Apple Blossom Drive, Trempealeau Wildlife Refuge and Onalaska Lake areas

OTHER Public Comment

- Consider including the Lake City, MN area in the transmission upgrade to support growing development of homes, industry, and to decrease the amount of black outs



Map Comments by Area

HAMPTON AREA COMMENTS

1 National Historic Site
2 Maltby Nature Preserve
3 Irrigated lands
4-5 FWA
6 Proposed biodiesel
7 Proposed Gravel Quarry
8 Cannon Valley Trail
9 Quarry
10 Stanton Town Hall
11 Golf Course
12 Potential Pedestrian Bridge
13 Stanton Village
14 Annexed for Housing
15 Proposed Housing Development
16 Proposed Interchange
17 Potential Wind Development Area
18 Dairy
19 Existing Lines Impact Ag Operations
20 Potential Road Route
21 Intersection to be Eliminated
22 Treeline Cleared
23 Proposed New Intersection
24 Sewage Treatment Plant
25 Cemetery
26 New Irrigation
27 Goodhue County Park
28 County Hydro Power
29 Boy Scout Camp
30 Possible Residential Development
31 New Hospital Planned
32 Planned Interchange
33 Pose E. Platt? [Illegible]
34 Annexation Areas Under Discussion
35 Interchange
36 Road Improvement
37-38 Development Parcel
39-40 Annexed
41 New Interchange
42 Development
43-44 Prairie Island Indian Community Fee
45 Permitted Inventory Generation (Cannon Falls EC?)
46 Restored Prairie
47 Campground
48 Experimental Station
49 Missville Ravine Park Reserve (Dakota Cnty Park)
50 Corn and Soy
51 Sod Farm
52 Platted
53 Bluff
54 Sod Farm
55 Native Prairie/ Being Restored to Prairie
56 Corn and Soy Beans
57 Potential Line Pit
58 Livestock
59 Existing Distribution Line
60 Dennison Waste Water
61 Corn, Soy, Small Grains
62 Vebon Farmstead (NRHP)
63 Trout Lilley Listed spp.
64 Little Cannon River Water[Illegible]
65 CRS
66-67 Potential Bridge
68 Active Sand and Gravel Mine
69 CRP
70 2000 hogs
71 4500 hogs
72 Farmland Natural Areas (Dak Co.)
73 Dairy Farm 200 Head
74 Dairy Farm
75 Historic Home of Gov.Thye
76 Historic Oxford Mill
77 River Bluff Land
78 Dwarf Trout Lilly and Turks Cay Lilly
79 Buildable Site
80 Proposed MN/DOT Interchange
81-82 Homeschool Family
83 Daycare
84-85 Tree Farm
86 Daycare
87 Livestock
88 Nature Prairie
89-90 Livestock
91-93 Homeschool Family
94 Warsaw Wildlife Mgt Area
95 Rock Quarry and Fossil Site
96-97 Fossil Site (School Trips)
98-100 MN/DOT Proposed Interchange
101 Rental
102 Farmstay Retreat
103 Jewell Ness Private Airstrip
104 Wetland
105 Building Site
106 CRP
107 View of Zumbrota
108 Daycare
109 Cemetery
110 Turkeys
111 DNR Wildlife Area
112 Sangosta Res. Farm
113 Cattle
114-115 Livestock
116 Corn Research Center
117-118 Dairy Farm
119 Ind. Park
120 Great Western Ind. Park
121 Bluff Dwarf Trout Lilly
122-123 75 ft From Road Row
124 Historic Private Airfield,Active Use of Both Runways
125 Wang's Store (160 Year Old Historic Landmark)
126 Lateral Irrigation
127-128 Irrigation
129-130 New Irrigation
131 New Subdivided Plats John Geishen
132-148 Native Prairie
149 Nansen Ag Historic District
150-152 Black Walnut Tree Plantation
153 All Field No Fence for Poles
154-155 All Patterned Drain Tile
156 Parcel Farmed by Davidson
157 Livestock
158 New Irrigation
159 Show Horses
160 Gravel Pit Business
161-161 Livestock
163 Homeschool
164 Proposed Irrigation
165 Wetland
166 Dennison Sewer Treatment Pond
167 Irrigator
168 Show Horse Boarding Business
169 Livestock
170 Homeschooler

ROCHESTER AREA COMMENTS

1 Elk Ranch
2 Elk Farm
3 DNR - Muskie Tracking
4 Proposed Interchange
5 RC Airplane Field
6 Pipeline?
7 DNR Prairie Lands
8 New permit - 1000 Head
9 Habitat (near WMA)
10 Eyota Expansion
11 Proposed Building Site
12 Harlan Moorehart Runway
13 Pickett Field Runway
14 Gary Allen Runway
15 Ethanol Site, Not Permitted
16 Dairy, 350-400 Head
17 Lumber Yard, Option to Build Farm Improvement
18 Future DPC Proposed Sub Site?
19 Elk Run Development
20 Residential Development
21 RSD Development
22 Add RPU 34.5 Kv Line
23 Highway Expansion
24 New Interchange
25 LSAH 12
26 Quarry lands
27 County Highway 7, An Opportunity?
28 Nursery
29 Old Landfill
30 Oronoco Estates
31 Future School
32 Proposed School
33 Conservation Easement
34-35 Proposed Ethanol Plant
36 Easement for Bike, Walk, Horse (Chester Woods)
37-42 Subdivided
43 Camp Victory
44 Bald Eagles and Herons
45 Line of Oak Trees 100 Years Old
46 End of Airstrip
47 Could be Possible Hazard to Southerly Airstrip
48 Elk Run Development
49 Possible Routes
50 Not a House
51 Cemetery
52 3 Phase Distribution Line
53 City of Rochester Annexation
54 Archery Club
55 Drive
56 Trees
57 Road Does Not Go Through
58 RV Campground
59 Additional Road Row
60 Additional Residential Development Planned
61 Steeplechase
62 Camp Victory Directly Affected Area
63 Gary Hadeo 80 Acres
64 Conservation Projects Farming Impacts
65 Campsites
66 Eagle Nest
67 Egress Trail
68 Canoe Launch

LA CROSSE AREA COMMENTS

1 Vineyards
2-3 Organic Farms
4 New Subdivision - August Prair
5 Cemetery
6 Solar Home - Off Grid
7 Potential Wetlands Reserve
8 Irrigation
9 Private, Not MN DNR State Forest
10 Gravestone
11 Prairie Conservation
12 Great River Trail
13 Gundersen Clinic
14 School Planned - Own Land
15 Bird Flightway
16 Rebuilt 1992
17 Golf
18 7 Historic Bridges
19 Prime Divertor Area
20 Verify Tx Line Locations
21 Onalska Landfill (Former Superfund)
22 MUC/MVC? Holland Soms Prairie
23 Dike Bike Trail
24 NRHP Bunnell House
25 Highway 35 Scenic Easements
26 Cemetery
27 Gas Line Along Top of Bluff
28-29 Indian Burial Ground
30 Valuable and Sensitive Marsh Habitat
31 Mowe Line South of Tracks Away from River
32 Bad Chalsma (Bis Land)
33 Annexed to Holmen, Tax Increment
34 MN Biodiversity
35 75 Possible Double Circuit with 161
36 Parallel Irrigation

ALMA AREA COMMENTS

1 CRP Land
2 Snake Creek State Forest
3 DPC Cochrane
4 Coochville
5 "The Prairie"
6 Osprey Nests
7 Limit Fragmentations, Reduce Addition of Invasives
8 Foolsch's Park
9 BLM
10 Buffalo City has Concern w/Routing Thru Here
11 Future Cemetery, Sewer and Water Plant
12 Potential County Wind Turbine
13 City Growth, Annexed
14 Fountain City Racetrack
15 Scenic Easements
16 Ag Crop
17 Wetland Mitigation for Menards (Winona)
18 Ag Crop
19-20 Bird Flyways Along River

WINONA AREA COMMENTS

1 Future Rural Residential
2 CRP Land
3-4 Annexation Area
5 Proposed Mixed Use
6 Annexation by Goodview
7 Daley Dairy Farm
8 Natural Gas Pipeline
9 Arches RR Bridge and Farmer's Park
10 Expansion Plans, Height?
11 WI Trail System, 35 Trail
12 Bridge [Illegible]
13 Not Right, Lost River Itself
14 Annexation by Goodview
15 Dike Bike Trail
16 Industrial
17 Boat Harbor
18 High Density and Older Homes
19 Proposed Pedestrian Trail Chester Woods/ Rochester
20 Proposed Pedestrial. Trail
21 Fire Tower
22 Expansion of Residential
23 Commercial Expansion
24 To Plainview with Pedestrial Trail
25 Organic Farm
26 Soil and Water Conservation Dam
27 Proposed Development and Existing Golf Course
28 Crop Farming
29 Dairy Farm
30 80 Head
31 100 Head
32 60 Head
33 160 Head
34 225 Head Dairy Farm
35 Impact to Ag, Corn, Beans, Rotated Hay
36 450 Head Dairy Farm
37 Dairy Farm
38 300 Head Dairy Farm
39 Industrial Development
40 Cemetery

COMMENTS OUTSIDE OF AREAS

1 Prairie Island Indian Community
2-6 Dairy

Project Features

345 kV Macro-Corridor

Public Comments From Sheet Maps

- September and December 2007
- May 2008
- March 2008
- December 2008

- Municipality
- County/ County Park
- State Park
- Wildlife Management Area
- Minnesota State Forest Statutory Boundary
- Minnesota State Forest Land
- Wisconsin Department of Natural Resources
- The Nature Conservancy
- Minnesota Land Trust
- Bureau of Indian Affairs
- National Park Service
- U.S. Fish and Wildlife Service

Hampton ▪ Rochester ▪ La Crosse 345 kV Transmission Project

Project Description

CapX2020 is a joint initiative of 11 transmission-owning utilities in Minnesota, Wisconsin, and the surrounding region to expand the electric transmission grid to ensure continued reliable and affordable service. Planning studies show that customer demand for electricity will increase by 4,000 to 6,000 megawatts (MW) by 2020. The new transmission lines will be built in phases designed to meet this increasing demand as well as to support renewable energy expansion. The first group of CapX2020 projects (Group 1) consists of three proposed 345 kilovolt (kV) transmission lines, including the proposed Hampton-Rochester-La Crosse 345kV Transmission Project, and a proposed 230kV line.

Hampton-Rochester-La Crosse 345kV Transmission Project

The proposed project would consist of the following components:

Transmission Lines

- 345kV transmission line from Hampton, Minnesota, to the La Crosse, Wisconsin, area.
- Two 161kV transmission lines between a new North Rochester Substation and the existing Northern Hills and Chester Substations.

Substations

- Construction of a new substation near Hampton, Minnesota
- Construction of a new substation north of Rochester, Minnesota
- Improvements to the existing Northern Hills and Chester Substations to accommodate the new 161kV lines.
- Construction of a substation in the greater La Crosse area. This substation could be located in La Crosse, near Holmen or near Galesville. The actual location will be determined by the selected Mississippi River crossing location and transmission line route. This substation could be located at an existing site or a new location. A second substation may require modifications in certain circumstances.

Mississippi River Crossing

The proposed project would cross the Mississippi River at one of three existing transmission line crossing locations :

(1) Alma

(2) Winona

(3) the La Crosse/La Crescent area

Environmental Resources

As a part of the routing process, sensitive environmental resources are assessed, including:

- Wildlife and habitat
- Cultural resources
- Land use
- Scenic resources

Wildlife and habitat

Utilities evaluate federal and state special status species – and their habitats – known to exist in Minnesota and Wisconsin so that potential impacts may be assessed. These species and their habitats are identified so the project can be designed to avoid or minimize impacts to them.

Potential impacts to wildlife and habitat can be avoided by:

- Careful project design
- Avoiding placement of transmission structures in wetlands and sensitive habitats
- Avoiding construction during breeding or nesting seasons
- Working with state and federal agencies to identify additional mitigation strategies

Potential impacts to birds are also an important consideration in routing and project design. Using avian-safe design standards, placement of line markers to reduce collisions, and timing of construction can minimize impacts.

Cultural resources

Utilities strive to avoid or minimize impacts to cultural resources by using best management practices. Intensive cultural resource surveys of the proposed route are performed prior to construction to mitigate impacts to cultural resources within the right-of-way.

RUS will coordinate with the State Historic Preservation Officer, Tribal Historic Preservation Officer and consulting parties to avoiding impacts and determine appropriate mitigation measures for the proposed project.

Land use

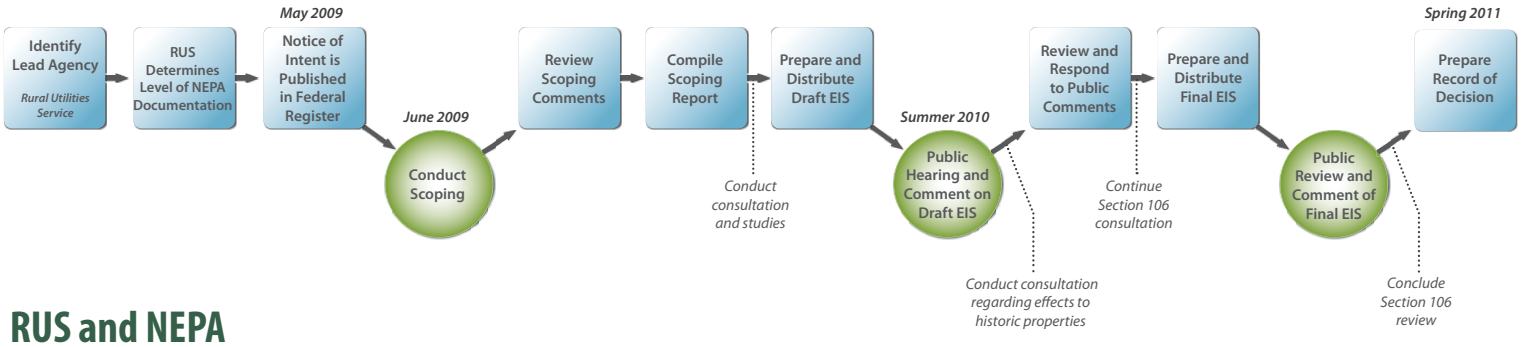
Utilities work with landowners to minimize impacts to existing land use by:

- Aligning the transmission line along existing road or utility rights-of-way or along property/parcel lines or field lines
- Avoiding pivot irrigation systems and impacts to agricultural operations
- Avoiding residential areas

Scenic resources

Scenic resources are assessed in a proposed project area and considered during the routing process. Using existing utility or transportation corridors minimizes potential impacts.

Federal Review Process



RUS and NEPA

Dairyland Power Cooperative has requested financial assistance from USDA Rural Utilities Service (RUS), for its anticipated 11 percent ownership interest in the proposed Hampton-Rochester-La Crosse 345 kilovolt transmission line project. RUS has determined that its funding of Dairyland's ownership interest is a federal action and therefore subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA).

RUS is the lead agency for both NEPA and Section 106 review. As such, RUS will coordinate compliance with Section 106 and its implementing regulations with the steps taken to meet NEPA requirements. RUS and other federal agencies involved in the NEPA review will jointly prepare an Environmental Impact Statement (EIS). Each federal agency will independently develop its own decision document.

The NEPA process will evaluate the proposed project's potential impacts on environmental resources, including:

- land use
- threatened and endangered species
- wetlands
- cultural and historic properties
- socioeconomics
- scenic areas

Additional federal approvals may include:

- Section 404 of the Clean Water Act
- Section 106, NHPA Compliance
- Section 10 Permit, Rivers and Harbors Act
- Section 7 Endangered Species Act Consultation
- Special Use Permit for National Wildlife Refuge
- Bald and Golden Eagle Protection Act
- Migratory Bird Treaty Act
- Section 106 National Historic Preservation Act
- FAA Form 7460-1

Hampton - Rochester - La Crosse 345 kV Transmission Project

HAMPTON-ROCHESTER-LA CROSSE 345 kV TRANSMISSION PROJECT

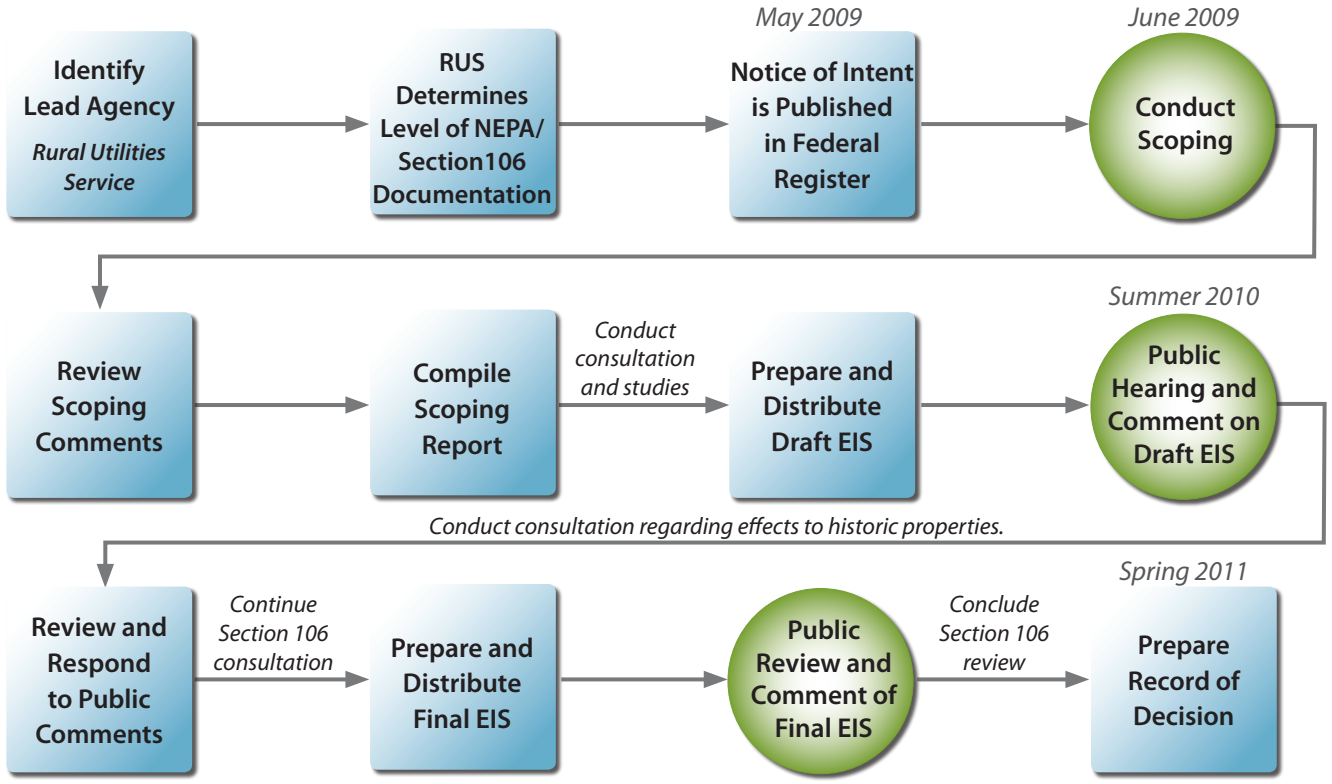
FEDERAL REVIEW PROCESS

Dairyland Power Cooperative has requested financial assistance from USDA Rural Utilities Service (RUS), for its anticipated 11 percent ownership interest in the proposed Hampton-Rochester-La Crosse 345 kilovolt transmission line project. RUS has determined that its funding of Dairyland's ownership interest is a federal action and therefore subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA).

RUS is the lead agency for both NEPA and Section 106 review. As such, RUS will coordinate compliance with Section 106 and its implementing regulations with the steps taken to meet NEPA requirements. RUS and other federal agencies involved in the NEPA review will jointly prepare an Environmental Impact Statement (EIS). Each federal agency will independently develop its own decision document. The EIS preparation process is detailed below.

The NEPA process evaluates the project's potential affects on environmental resources, such as:

- land use
- threatened and endangered species
- wetlands
- cultural and historic properties
- socioeconomics
- scenic areas



www.usda.gov/rus

The table below shows permit, regulatory compliance or other coordination required by federal agencies.

Agency	Permit, regulatory compliance, or other coordination
RUS	• 7 CFR 1794 • NEPA Compliance • Section 106, NHPA Compliance
U.S. Army Corps of Engineers (USACE)	• Section 10 Permit of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) for crossing the Mississippi River
USACE and U.S. Environmental Protection Agency Region 5	• Nationwide permit or individual permit under Section 404 of the Clean Water Act of 1977
U.S. Department of Agriculture's Natural Resource Conservation Service	• Farmland Conversion Impact Rating (Form AD-1006)
U.S. Fish and Wildlife Service (USFWS)	• Use authorization if right-of-way required on National Wildlife Refuge or Wetland Management District lands (Standard Form 299) and Special Use Permit if crossing National Wildlife Refuge • Section 7 of the Endangered Species Act 1973 (16 U.S.C. 1531–1544; 50 C.F.R. 22 consultation) • Bald and Golden Eagle Protection Act (16 U.S.C. 668, 50 C.F.R. 22) • Migratory Bird Treaty Act (16 U.S.C. 701–712)
Federal Aviation Administration (FAA)	• Form 7460–1, Objects Affecting Navigable Airspace
National Park Service	• Consultation: Section 7 of the Wild and Scenic Rivers Act 1968 (if proposal affects federally designated areas)

Public scoping

The RUS NEPA process provides several opportunities for public review and comment (identified in green on the NEPA process graphic). The CapX2020 utilities had several rounds of public information meetings prior to the NEPA scoping meetings; public comments received at those meetings were considered in corridor development and route option identification. Public comments received at scoping meetings will be recorded as part of the project record. RUS will use its procedures for public involvement under NEPA to meet its Section 106 requirements to solicit and consider the views of the public.

The NEPA scoping process serves multiple goals for the proposed project, including:

- Soliciting public comments
- Discovering alternatives to a proposed action (preferred route)
- Identifying significant impacts
- Eliminating insignificant issues from further assessment
- Communicating information
- Consulting with agencies and organizations

Track EIS development, download comment forms, and access all public documentation at the RUS Web site, http://www.usda.gov/rus/water/ees/eis.htm.

Please contact Stephanie Strength for more information:

USDA, Rural Utilities Service
1400 Independence Ave. SW, MAIL STOP 1571, Room 2244
Washington, DC 20250-1571
stephanie.strength@wdc.usda.gov

USDA Rural Development

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Missouri River Energy Services
Otter Tail Power Company
Rochester Public Utilities
Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

CapX2020 proposed transmission line project

Delivering reliable electricity for the future

CapX2020 is a joint initiative of 11 transmission-owning utilities in Minnesota and the surrounding region to expand the electric transmission grid to ensure reliable and affordable service to 2020 and beyond. The CapX2020 utilities include cooperatives and investor-owned and municipal utilities.

Project need

The region is experiencing job and population growth, leading to a steady increase in electricity usage. In Minnesota, North and South Dakota, and Wisconsin, electricity consumption has doubled since 1980, according to data from the U.S. Department of Energy's Energy Information Administration. In the Midwest, for example, sub-zero temperatures pushed electricity demand to an all-time winter peak in mid-December 2008. The electric transmission grid in the Upper Midwest hasn't had a major upgrade in nearly 30 years.

Planning studies show that customer demand for electricity will increase by 4,000 to 6,000 megawatts (MW) by 2020 – more than today's system has the capacity to deliver. The proposed new transmission lines would be built in phases designed to meet the electricity demand growth, as well as to support renewable energy expansion. The first group of CapX2020 projects includes three proposed 345-kilovolt (kV) transmission lines, one 230-kV line and associated substations.

- A 240-mile, 345-kV transmission line between Brookings County, South Dakota and Hampton, Minnesota, plus a related 345-kV line between Marshall and Granite Falls, Minnesota
- A 250-mile, 345-kV transmission line between Fargo, North Dakota and St. Cloud and Monticello, Minnesota
- A 150-mile, 345-kV transmission line between Hampton and Rochester, continuing on to La Crosse, Wisconsin
- A 70-mile, 230-kV transmission line between Bemidji and Grand Rapids in north central Minnesota

Minnesota Certificate of Need process

The CapX2020 utilities were granted a Certificate of Need (CN) from the Minnesota Public Utilities (MN PUC) on April 16, 2009 for the three 345-kV projects. A separate CN application was filed for the 230-kV transmission line in March 2008; the MN PUC unanimously approved the CN application on July 9, 2009.

The CN approval process generally takes 15 to 18 months and provides many opportunities, including public meetings and hearings, for individuals, interested parties and local governments to provide input to the MN PUC as well as to receive information from CapX2020 about the proposals.

North Dakota, South Dakota and Wisconsin regulators determine whether portions of the proposed lines in their states are needed.

Project routing

While the MN PUC assesses the transmission lines' need, the utilities are working with local governments, landowners, electric cooperatives and other stakeholders to evaluate potential routes. In addition to state approval of the project need, each project also requires regulatory approval for each line's specific route.

In Minnesota, a Route Permit application must be filed with the MN PUC for each project, proposing a preferred and alternate route. The MN PUC makes the final route decision, taking into consideration recommendations from all participating parties and landowners, complying with federal agency reviews, and following a comprehensive process that includes public meetings and hearings examining route alternatives. Similar review, permit and approval processes are required from the North Dakota, South Dakota and Wisconsin commissions.

continued on back

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The CapX2020 utilities filed a Route Permit application with the MN PUC on December 29, 2008 for the Brookings County-Hampton transmission line. A Route Permit application for the Monticello-St. Cloud transmission line project was filed on April 8, 2009. A Route Permit application for the Bemidji-Grand Rapids project was filed on June 4, 2008. Route Permit applications will be filed in 2009 for the Fargo-St. Cloud and Hampton-Rochester-La Crosse projects.

Federal approval

Before the lines can be built, permits and approvals are also required from several federal agencies, including Rural Utilities Service, the U.S. Army Corp of Engineers and the U.S. Fish and Wildlife Service. Federal agencies conduct environmental review to comply with the National Environmental Policy Act (NEPA). State and federal agencies work together to coordinate their processes.

The CapX2020 utilities are committed to working with all interested parties during the need and routing processes.

Stay informed

The best way to participate is to stay informed. Follow progress on the individual agency Web sites and on the CapX2020 Web site at www.CapX2020.com.

Minnesota Public Utilities Commission: To view CN documents, go to the MN PUC's Web site at www.puc.state.mn.us, click on "eFiling and eDockets" and then click on "Search Documents" and search for docket 06-1115. Use "06" for the year (when the first CapX2020 document was filed) and "1115" in the second field, then press search. All filings in the CapX2020 eDocket will be listed. The Brookings County-Hampton project Route Permit application docket number is ET2/TL-08-1474. The Monticello-St. Cloud project Route Permit application docket number is ET2, E002/TL-09-246. The Bemidji-Grand Rapid project Route Permit application docket number is E017, E015, ET6/TL-07-1327. The MN PUC can also be reached at 1-800-657-3782.

North Dakota Public Service Commission: Contact the commission at (701) 328-2400 or visit www.psc.state.nd.us.

South Dakota Public Utilities Commission: Contact the commission at (605) 773-3201 or visit www.puc.sd.gov.

Public Service Commission of Wisconsin: Check the status of the project case on the PSCW Web site, www.psc.wi.gov, by entering the document number 05-CE-136 in the "Link Directly to a Case" section. The PSCW can also be reached at 1-888-816-3831.

Contact information

Hampton-Rochester-La Crosse

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Chuck Thompson
Dairyland Power Cooperative
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Fargo-St. Cloud-Monticello

Project development manager:
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Bemidji-Grand Rapids

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Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

Hampton-Rochester-La Crosse 345-kV transmission line Project update

CapX2020 is a joint initiative of 11 transmission-owning utilities in Minnesota and the surrounding region to expand the electric transmission grid to ensure continued reliable and affordable service. Planning studies show that customer demand for electricity will increase by 4,000 to 6,000 megawatts (MW) by 2020. The new transmission lines will be built in phases designed to meet this increasing demand as well as to support renewable energy expansion. The first group of CapX2020 projects (Group 1) is comprised of three proposed 345-kilovolt (kV) transmission lines, including the Hampton-Rochester-La Crosse line, and a proposed 230-kV line.

The CapX2020 utilities are committed to working closely with residents, landowners, local and tribal governments, business groups, state agencies and other stakeholders to explain the need for the proposed transmission lines and to determine the most preferable routes.

Project need

The CapX2020 utilities were granted a Certificate of Need (CN) from the Minnesota Public Utilities Commission (MN PUC) on April 16, 2009 for all three 345-kV projects. To view CN documents, go to the MN PUC's Web site at www.puc.state.mn.us, click on "eFilings and eDockets" and then click on "Search Documents" and search for docket 06-1115. Use "06" for the year (when the first CapX2020 document was filed) and "1115" in the second field, then press the search button. All filings in the CapX2020 eDocket will be listed. The MN PUC can also be reached at 1-800-657-3782.

The Wisconsin regulatory process combines need and routing into one permit, a Certificate of Public Convenience and Necessity (CPCN), which will be filed with the Public Service Commission of Wisconsin (PSCW) and the Wisconsin Department of Natural Resources in fall 2009. Check the status of the project case on the PSCW website, www.psc.wi.gov, by entering document number 05-CE-136 in the "Link Directly to a Case" section. The PSCW can also be reached at 1-888-816-3831.

Routing process

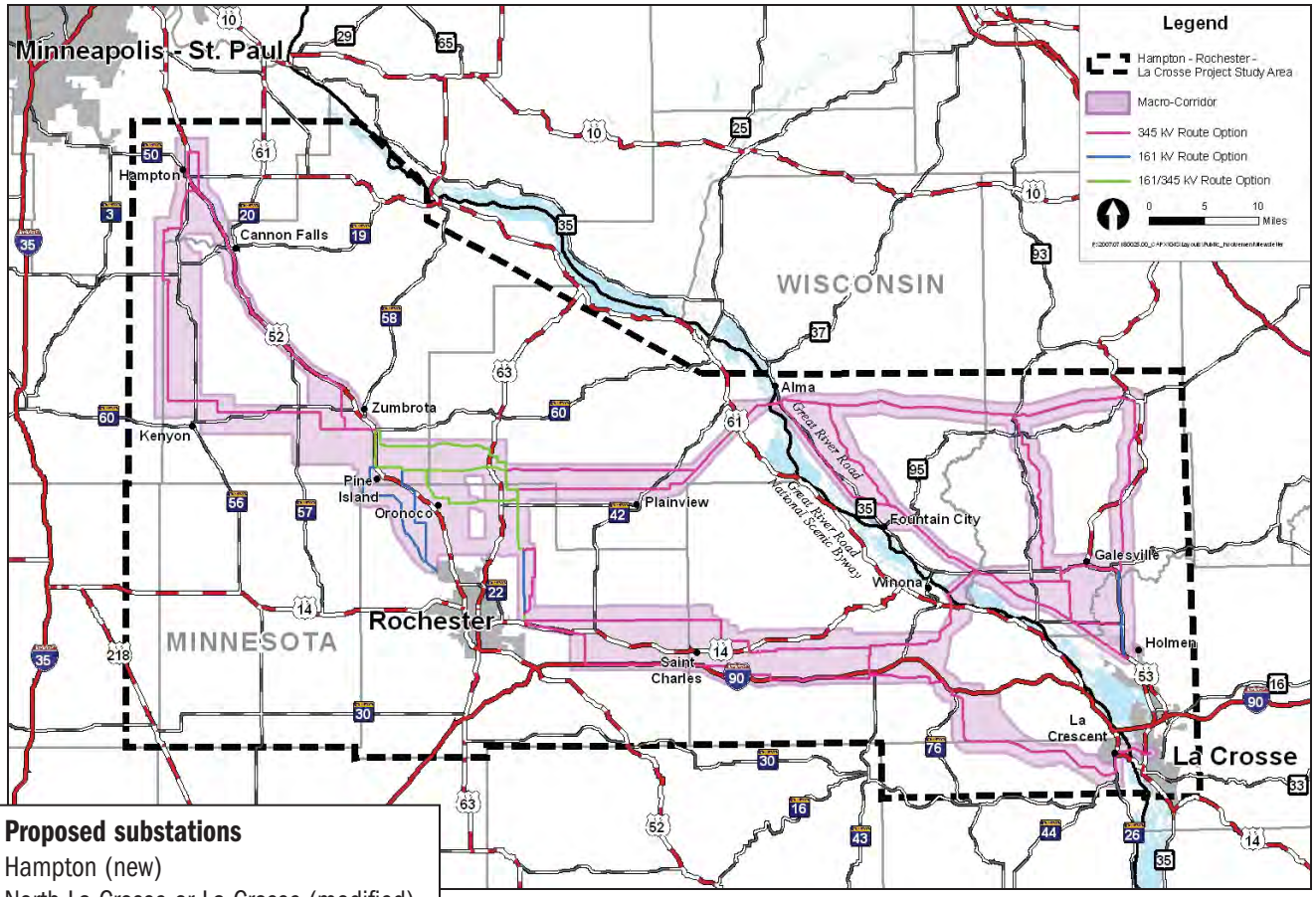
Siting a transmission line is a three-phase process that involves mapping resources, identifying opportunities and constraints within the project study area, and evaluating each alternative. A recommended route and alternatives will be identified based on a series of project-specific siting criteria, which typically includes the following:

- Transmission line length
- Right-of-way requirements and availability
- Existing road and transmission line corridors
- Land use considerations, such as proximity to residences, impact on agricultural activities, existing and future land use and visual impacts
- Environmental resource considerations such as impacts on cultural and historic sites, or biological resources such as wildlife, plants and wetlands
- Topography
- Jurisdiction and regulatory considerations
- Conflicts with airport height restrictions
- Cost

In Minnesota, a Route Permit application proposing route options must be filed with the MN PUC. The CapX2020 utilities plan to submit a Route Permit in summer 2009 for the Hampton-Rochester-La Crosse 345-kV transmission line project. The MN PUC and PSCW determine the transmission line's final route, taking into consideration recommendations from all participating parties and landowners, complying with federal agency review, and following a comprehensive process that includes public meetings and hearings examining route alternatives.

Hampton-Rochester-La Crosse

Hampton-Rochester-La Crosse 345-kV proposed route options



Proposed substations
Hampton (new)
North La Crosse or La Crosse (modified)
North Rochester (new)

Federal approval

Before the lines can be built, permits and approvals are also required from several federal agencies, including Rural Utilities Service, the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service. Federal agencies will conduct environmental reviews to comply with the National Environmental Policy Act. The MN PUC, the PSCW and participating federal agencies will work together to coordinate their processes.

Public information and outreach

There are many opportunities for public comment throughout the project schedule and permitting process. Early input is encouraged to help the project team minimize potential impacts in the project area. For more information on the dates and locations of upcoming meetings, visit www.capx2020.com.

Project contacts

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Wisconsin Public Power Inc.
Xcel Energy

SE Twin Cities – Rochester, MN – La Crosse, WI, 345-kV Transmission Line Permitting Requirements

CapX 2020 is a joint initiative of 11 transmission-owning utilities in Minnesota and the surrounding region to expand the electric transmission grid to ensure continued reliable service. Planning studies show that customer demand for electricity will grow by up to 6,000 megawatts (MW) by 2020. The new transmission lines will be built in phases designed to meet this electric growth, as well as to support renewable energy expansion. The first group of CapX 2020 projects (Group 1) is made up of three proposed 345-kV transmission lines, one of which is the SE Twin Cities – Rochester – La Crosse line, and a proposed 230-kV line.

CapX 2020 utilities are committed to working closely with residents, landowners, local and tribal governments, business groups, state agencies and other stakeholders to explain the need for the proposed transmission lines and to determine the most preferable routes. For more information on the projects, please visit www.CapX2020.com.

<table>
<tr><td>Major Permits</td><td>Minnesota Public Utilities Commission (MN PUC)
• Certificate of Need
• Route permit</td><td>Public Service Commission of Wisconsin (PSCW)
• Certificate of Public Convenience and Necessity (CPCN)
• Need and routing process combined
• Joint process with Wisconsin Department of Natural Resources (WDNR)</td><td>Federal Permits
• Rural Utilities Service (RUS) / National Environmental Policy Act (NEPA) requirements
• U.S. Army Corps of Engineers
• U.S. Fish and Wildlife Service</td></tr>
<tr><td>Certificate of Need (CON)</td><td colspan="3">The utilities will apply for a CON with the MN PUC that will cover all three 345-kV projects. The CON timeline will drive the schedule for the Minnesota route permit, the Wisconsin CPCN permit, WDNR permits and other federal permits. The CON process will determine the need for the line as well as its characteristics, such as substations and end-points, in Minnesota. In addition, a need and an Alternative Evaluation study will be prepared and filed with the RUS.</td></tr>
<tr><td>Routing and Permitting</td><td colspan="3">The MN PUC, the PSCW and participating federal agencies will select the route following a comprehensive process that includes public meetings and hearings examining route alternatives.</td></tr>
<tr><td>Public Information and Outreach</td><td>Certificate of Need Process (MN and WI)
The MN PUC and PSCW will decide whether the proposed lines are needed in their respective states. The process includes significant opportunities for public comment and involvement.
• Notice mailings, MN Spring 2007, WI 2008
• MN CON filing, Spring 2007
• CON meetings and hearings (2007-2009)
• Interested parties can contact MN PUC at 800-657-3782 or go to www.puc.state.mn.us to be placed on the information list.
• PSCW can be contacted at psc.wi.gov or 888-816-3831.</td><td>Routing and Permitting Processes
• CapX open houses (2007-2008) – A series of meetings will be held throughout the proposed corridors.
• MN route permit application and WI CPCN filing, Summer 2008
• State and federal environmental impact statements will be prepared.
• Agency meetings and hearings (2007-2009) – Public scoping meetings will be held to gather input on the potential route.
• The MN PUC and PSCW will determine line route.</td><td>Project Development Manager – Xcel Energy Contact:
Pam Rasmussen
Routing Lead
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Chuck Thompson
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1-866-876-2869
lacrosseinfo@capx2020.com</td></tr>
</table>

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CapX 2020 SE Twin Cites – Rochester – La Crosse proposed project study corridor

Participating CapX 2020 utilities in the La Crosse project:

Dairyland Power Cooperative

Rochester Public Utilities

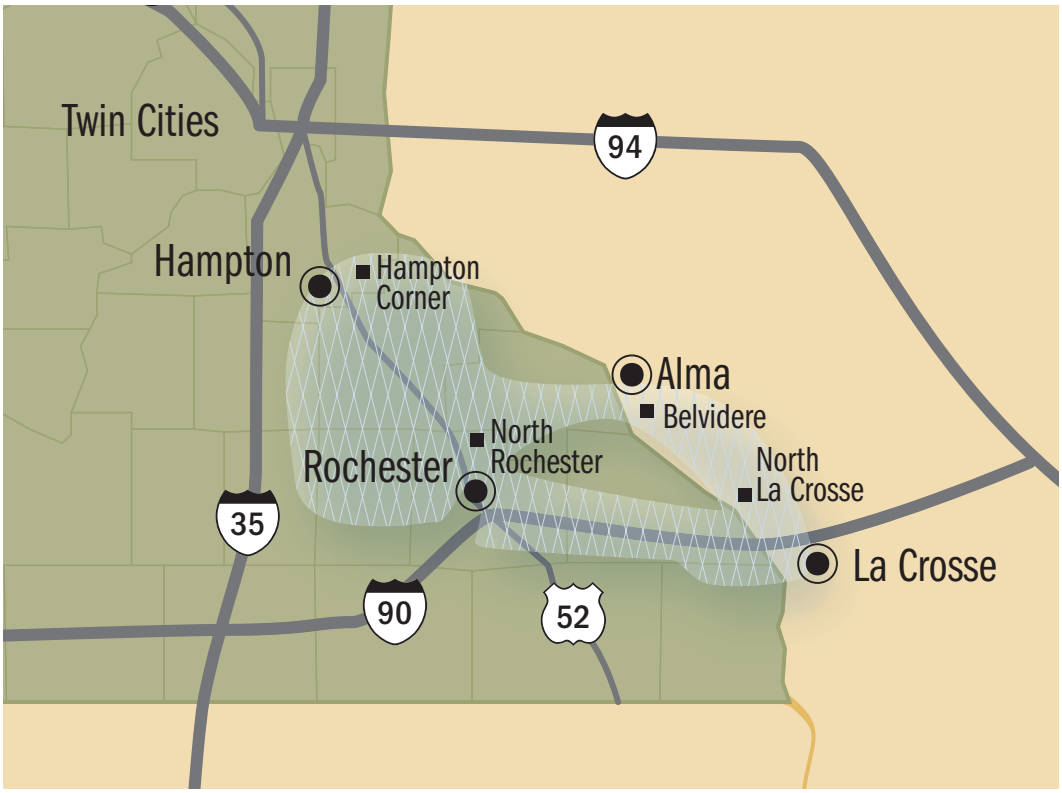
Southern Minnesota Municipal Power Agency

Wisconsin Public Power Inc.

Xcel Energy

Proposed substations:

- Belvidere (new)
- Hampton Corner (new)
- North La Crosse (modified)
- North Rochester (new)



CapX 2020 Group 1 proposed project study corridors

Bemidji-Grand Rapids (230-kV)

Fargo-St. Cloud-Monticello (345-kV)

SE Twin Cities-Rochester-La Crosse (345-kV)

Brookings, SD-SE Twin Cites (345-kV)

**The shaded areas are potential corridors for the proposed lines.*

4-23-2007

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Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

Minnesota regulatory process for high voltage transmission lines

This fact sheet provides an overview of the regulatory process associated with major approvals necessary before a high voltage transmission line can be built in Minnesota. The CapX2020 utilities have prepared similar fact sheets for each of the jurisdictions involved in the CapX2020 project. Visit www.capx2020.com for updated project information.

Minnesota Regulatory Process

Two major approvals must be obtained from the Minnesota Public Utilities Commission (MN PUC) before a high voltage transmission line can be built: a Certificate of Need (CN) and a Route Permit. The CN proceeding examines whether the proposed facilities are necessary and what the appropriate size, configuration and timing of the project should be. In a separate Route Permit proceeding, the MN PUC determines the route and design of the line.

Certificate of Need

Minnesota Statutes 216B.243 and Minnesota Rules 7849, 7829, 7849.0010-0110 and 1405 govern the CN process, which starts with filing an application.

Completeness review: The MN PUC reviews the application and identifies any additional information needed to begin the review process. The MN PUC issues notice of a comment schedule; anyone can comment on the application's completeness. Once the application is found complete, the MN PUC refers the case to an independent administrative law judge (ALJ), who presides over the hearing process, sets hearing schedules and intervention deadlines, and addresses other procedural matters.

Intervention: Anyone can attend meetings and hearings, file written comments and present written or oral testimony without being listed as an official intervening party. Parties who formally intervene typically are represented by an attorney (not required) and present a formal case that includes filing written testimony, cross examining witnesses and filing post hearing briefs. Parties must request intervenor status from the ALJ.

Environmental Report scoping public meetings: The Minnesota Department of Commerce, Office of Energy Security (OES) prepares an Environmental Report (ER), which examines the land use and natural resource considerations associated with the MN PUC's need-related decisions. Public meetings are conducted to describe the process and gather comments on issues and alternatives that should be addressed. The ER is the only environmental document where issues of size, type and timing are reviewed. Written comments may also be submitted to the OES.

Scoping decision: Before the OES prepares the ER, it reviews all public input and publishes its Scoping Decision, which outlines the issues to be addressed in the ER.

Environmental Report: The OES gathers information, then prepares and publishes the ER, which must be done before public hearings on the CN can take place. Anyone can provide written or oral comments on the document during hearings.

Hearings on the CN: The MN PUC requires a series of public hearings that are presided over by the ALJ. Notice is published in local newspapers prior to the start of the hearings. Anyone can present testimony and express opinions concerning the utility's proposal or alternatives and the CN. After hearing testimony and comments, the ALJ provides a report summarizing the hearing process and makes recommendations to the MN PUC.

MN PUC need decision: In making a determination, the MN PUC considers all information and hears comments at one of its regular weekly public meetings. In some cases, a second meeting is scheduled so commissioners have the necessary time to deliberate prior to making a decision.

Route Permit

A Route Permit is also needed from the MN PUC prior to building a high voltage transmission line in Minnesota. Once a Route Permit application is filed, the regulatory process begins.

Pre-application route development phase: Route development generally occurs in three stages during which utilities:

- Identify a study area; gather land use and resource information from federal, state and local agencies and governments; prepare maps.
- Identify routing options based on technical considerations, routing criteria and resource mapping.
- Compare and evaluate the routing options; select two or more routes, including a preferred route, to be included in the Route Permit application.

Route Permit process: After the utility files a Route Permit application, the process specified in MN PUC regulations begins.

Public meetings: Upon receiving an application, the OES schedules public meetings to introduce the proposed project and the Route Permit process. Scoping for an Environmental Impact Statement (EIS) begins at these meetings.

Scoping and routing additions: A full EIS is prepared by the OES. The first step of the Route Permit process is to establish the scope of the environmental analysis. Prior to preparation of an EIS, public comments are accepted on issues that should be examined in the EIS. Alternate routes to those proposed by the utility can also be proposed; however, the OES has specific regulations that must be followed. Once the OES scope of the EIS is published, no new routing options will be considered in the EIS.

Citizen advisory task force: The MN PUC may choose to establish an advisory task force committee (local government and interest group representatives) to help determine the EIS's scope and examine whether routing options should be added to those proposed by the utility.

Draft EIS: The OES prepares and publishes a Draft EIS that examines the land use and environmental issues associated with the proposal as well as the alternatives that were identified in scoping.

EIS comment period and public meetings: Once the Draft EIS is published, the OES establishes a period to receive comments on the document. The OES also holds public meetings to obtain comments on the document.

Public hearings: The ALJ conducts public hearings, which are designed to receive comments, opinions and supporting evidence on where the proposed lines should be located and how potential impacts of the line should be addressed. The ALJ prepares a report summarizing the hearings and may make routing and mitigation recommendations to the MN PUC. Notice is published in local newspapers prior to the hearings.

Final EIS: The OES takes all comments on the Draft EIS, responds to them, revises the draft accordingly and then prepares a Final EIS.

MN PUC Route Permit decision: At the end of the process, the MN PUC considers all material and conducts one or two public hearings. If two hearings are held, the first is used to receive oral comments and ask questions of the participants; the second is to deliberate and make a decision. Sometimes the two hearings are combined into one. A Route Permit decision cannot be made until after a CN is granted. If a Route Permit is granted, the MN PUC permit supersedes local jurisdictions as to the route itself; however, the utility may still be subject to other local, state and federal ordinances, such as Minnesota Department of Natural Resources stream crossing permits.

Concurrent permitting in other states: Regulatory bodies in neighboring states oversee similar permitting processes.

North Dakota Public Service Commission

- Certificate of Public Convenience and Necessity
- Certificate of Corridor Compatibility
- Transmission Facility Permit

Public Service Commission of Wisconsin

- Certificate of Public Convenience and Necessity

South Dakota Public Utilities Commission

- Facilities Permit

Federal environmental review: Before federal agencies grant loans or issue permits for transmission lines, the utility must comply with National Environmental Policy Act requirements. Depending on the circumstances and the application of federal regulations, an Environmental Assessment or EIS may be prepared. Federal environmental review is usually done concurrently or jointly with state environmental review.

Stay informed

The best way to participate is to stay informed. Follow progress on the individual agency Web sites and on the CapX2020 Web site at www.capx2020.com. To view CN documents, go to the MN PUC's website at www.puc.state.mn.us, click on "eFiling and eDockets" and then click on "Search Documents" and search for docket 06-1115. Use "06" for the year (when the first CapX2020 document was filed) and "1115" in the second field, then press the search button. All filings in the CapX2020 eDocket will be listed. The MN PUC can also be reached at 1-800-657-3782.

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Wisconsin regulatory process for high voltage transmission lines

This fact sheet provides an overview of the regulatory process associated with the major approvals necessary before a high voltage transmission line can be built in Wisconsin. The CapX2020 utilities have prepared similar fact sheets for each jurisdiction involved in the CapX2020 projects. Visit www.capx2020.com for updated project information.

Wisconsin Regulatory Process

The determination of need and routing for approving a transmission line are combined in Wisconsin. The Public Service Commission of Wisconsin (Commission) reviews project applications and, if approved, grants a Certificate of Public Convenience and Necessity (CPCN). When reviewing a transmission project, the Commission considers alternative plans to address the need and alternative locations or routes, as well as need, engineering, economics, safety, reliability, individual hardships and environmental factors. The Commission's decision is based on a hearing record.

The Wisconsin Department of Natural Resources (DNR) Office of Energy is a partner in the Commission review process. Project applications include information needed for the DNR to assess the likelihood that any required DNR permits can be granted. Other state agencies may also participate in the Commission process.

Certificate of Public Convenience and Necessity (CPCN)

Wisconsin Statutes § 1.12 (6), 196.491 and 30.025 and Wisconsin Administrative Code Chapters PSC 2, 4, 111 and 112 govern the CPCN process. A CPCN is required for transmission projects that are:

- 345 kilovolts (kV) or greater; or
- less than 345 kV, but greater than or equal to 100 kV, more than one mile in length and require some new rights-of-way (ROW).

All other transmission line projects must receive a Certificate of Authority (CA) from the Commission if the project's cost is above a certain percent of the utility's annual revenue [Wis. Stat. 196.49 and Wis. Adm. Code PSC 112].

Pre-application route development phase: Route development generally occurs in three stages during which utilities:

- Identify a study area; gather land use and resource information from federal, state and local agencies and governments; prepare maps.
- Identify routing options based on technical considerations; routing criteria and resource mapping.
- Compare and evaluate the routing options; select two or more routes to be included in the CPCN application.

CPCN applications must include at least two viable routes for proposed projects. Prior to filing an application, the applicant may hold public meetings to encourage the public to provide information and comments on the proposed transmission line before making routing decisions.

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Pre-application Commission and DNR consultation: The Commission and DNR staff provides guidance regarding the type of information required in the CPCN and DNR permit applications. This can include wetland delineation work and biological surveys as well as information on project need, engineering design and project alternatives.

Wis. Adm. Code 111 defines application requirements. In addition, the Commission, DNR and Department of Agriculture, Trade and Consumer Protection provide filing requirements that are posted on the Commission Web site.

CPCN process: After a utility files a CPCN application, the process specified under Commission regulations begins.

Application filing and completeness review: When an application for a CPCN is filed with the Commission, applications are also filed with the DNR for any permits required for either of the two routes proposed. Commission and DNR staff examines the application during a 30-day completeness review, notifying the applicant by letter whether the application is complete or what further information may be required. Copies of the application are distributed to local libraries and officials and can be viewed on the Commission Web site. All documents and transcripts will be available through the Commission's electronic filing system.

Commission public notification letter: Once an application is filed, the Commission sends a public notification letter to property owners on or near the proposed ROW, local government officials, local libraries, the media, and other agencies and interested parties that the review process is beginning. Comments and questions are solicited.

Intervention: Anyone can attend meeting and hearings, file written comments and present written or oral testimony without being listed as an official intervenor or party to the case. Individuals and groups who want to be more involved in the process may request party status by writing to the Commission administrative law judge before a hearing. Full parties may cross-examine witness and write briefs. Parties have a number of responsibilities that are described on the Commission Web site.

Scoping and public meetings: As part of the environmental review, Commission and DNR staff prepare either a draft Environmental Impact Statement (EIS) or an Environmental Review (EA) to determine if an EIS is needed. Wis. Adm. Code PSC 4 and the PSC Wisconsin Environmental Policy Act (WEPA) coordinator determine the type of review. Generally, transmission lines 345 kV or greater and at least 10 miles long require an EIS. In order to prepare an EIS, the Commission conducts scoping, which may be achieved through interagency correspondence, workshops, surveys or public meetings in the proposed project area.

Draft Environmental Impact Statement (DEIS): If an EIS is necessary, Commission and DNR staff will utilize information from the application, field review, scooping and other sources to prepare the document. The Commission must issue the DEIS for review with a comment period of at least 10 days.

Agricultural Impact Statement (AIS): Section 32.035 of the Wisconsin Statutes, pertaining to eminent domain (the right to condemn property), requires the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) to prepare an AIS for projects. This is required when the acquisition of farmland is subject to condemnation as described in state law, even if the applicant does not believe condemnation will occur. The purpose of the AIS is to assess the impact on individual farm operations when a proposed land acquisition involves the potential for condemnation under Wisconsin eminent domain statutes. For transmission line projects, if more than five acres will be taken from any farm operation, an AIS is required. Projects requiring five or fewer acres from each farm operator may, as the DATCP's discretion, have an AIS prepared. The DATCP has 60 days to prepare an AIS from the date all information is received. The applicant cannot negotiate with landowners until 30 days after an AIS is published. When as AIS is required for a project that requires Commission approval, the process is coordinated with the Commission in order to adequately inform the Commission's decision.

Final Environmental Impact Statement (FEIS): Once comments on a DEIS are received, Commission and DNR staff prepare an FEIS. The FEIS may vary from the DEIS in scope, based on comments received on the DEIS or other pertinent information. The Commission must distribute copies of the FEIS and announce its availability at least 30 days prior to holding a public hearing on the project.

Commission hearing: All projects that require a CPCN require a public hearing. A Notice of Hearing is sent to everyone on the Commission project mailing list, and hearings are held in the area of the proposed transmission line project. A Commission administrative law judge runs the hearings. If someone from the public wants to testify at the hearing, legal counsel is not required. Those who want to testify fill out appearance slips and are called on by the administrative law judge when it is their turn. Comments can also be written or submitted on the Commission Web site. The Commission makes decisions based on the hearing record.

Commission decision and route selection: The Commission makes the final decision on proposed transmission lines after reviewing testimony from the applicant, DNR staff, full parties, Commission staff and the public. The Commission discusses the transcripts, exhibits, briefs and the issues raised at the hearings in meetings open for public observation but not for public comment. The decision includes whether the line will be built, how it is designed and where it will be located. The Commission then issues an order.

Wis. Stats. 1.12 (6) outline the following order of priorities for the Commission to consider for new transmission line routes:

1. Existing utility corridors (such as transmission lines, electric distribution lines or natural gas pipelines).
2. Highway and railroad corridors.
3. Recreational trails.
4. New corridors or paths representing new ROW.

The Commission selects the route when it grants the CPCN. The final decision may be the applicant's preferred route, a combination of reasonable routes or a variation of a route suggested by the public.

DNR permitting: The CPCN review and determination is a joint process between the Commission and the DNR. Any specific DNR permits required (i.e. for wetlands, waterways or storm drainage management) are usually identified in the pre-consultation process. The applicant must file for those permits at the same time a CPCN application is filed. DNR staff work with the Commission from the pre-consultation phase through the decision-making process. DNR permits for the project, if approved, are issued within 30 days from the date a CPCN is issued.

Concurrent permitting in other states: Regulatory bodies in neighboring states oversee similar permitting processes.

Minnesota Public Utilities Commission

- Certificate of Need
- Route Permit

North Dakota Public Service Commission

- Certificate of Public Convenience and Necessity
- Certificate of Corridor Compatibility
- Transmission Facility Permit

South Dakota Public Utilities Commission

- Facilities Permit

Federal environmental review: Before federal agencies grant loans or issue permits for transmission lines, the agencies must comply with requirement of the National Environmental Policy Act. Depending on the circumstances and the application of federal regulations, an EA or EIS may be prepared. Federal environmental review is usually done concurrently or jointly with state environmental review.

Stay informed

The best way to participate is to stay informed. Follow progress on the individual agency Web sites and on the CapX2020 Web site at www.capx2020.com.

Public Service Commission of Wisconsin (PSCW): To view CapX2020 filings, go to the PSCW's Web site at www.psc.wi.gov. Search for docket 5-CE-136 under "link directly to a case" on the homepage. The Commission can be contacted at (608) 266-5481 or via the web.

Minnesota Public Utilities Commission (MN PUC): To view CapX2020 filings, go to the MN PUC's Web site at www.puc.state.mn.us. Click on "eDockets & eFilings;" then click on "search documents" and search for docket 06-1115.

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CapX 2020 Proposed Transmission Line Infrastructure

CapX 2020 Group 1 proposed projects

Bemidji-Grand Rapids (230-kV)

Fargo-Alexandria-St. Cloud-Monticello (345-kV)

SE Twin Cities-Rochester-La Crosse (345-kV)

Brookings, SD-SE Twin Cites (345-kV)

How do the pieces fit together?

The conductors are attached to the structures by insulators that prevent contact between the conductor and the structure, because contact between the two could result in a short circuit, potentially interrupting the power supply. The foundation, structure and insulators must be strong enough to support the weight of the conductor and any wind and ice loads. Shield wires attached to the top of the structures provide protection against lightning strikes, minimizing the possibility of storm-related outages.

Terms to know

Conductor: A wire made up of multiple aluminum strands around a steel core that together carry electricity. A bundled conductor is two or more conductors connected to increase the capacity of a transmission line.

Circuit: A continuous electrical path along which electricity can flow from a source, like a power plant, to where it is used, like a home. A transmission circuit consists of three phases with each phase on a separate set of conductors.

Phase: One element of a transmission circuit that has a distinct voltage and current. Each phase has maximum and minimum voltage peaks at different times than the other phases.

Single circuit: A circuit with three sets of conductors.

Double circuit: Two independent circuits on the same structure with each circuit made up of three sets of conductors.

Shield wire: A wire connected directly to the top of a transmission structure to protect conductors from a direct lightning strike, minimizing the possibility of power outages.

Structures: Towers or poles that support transmission lines.

Insulator: An object made of a material like glass, porcelain or composite polymer that is a poor conductor of electricity. Insulators are used to attach conductors to the transmission structure and to prevent a short circuit from happening between the conductor and the structure.

Right-of-way: Land area legally acquired for a specific purpose, such as the placement of transmission facilities and for maintenance access.

Substation: A facility that monitors and controls electrical power flows, uses high voltage circuit breakers to protect power lines and transforms voltage levels as needed to further distribute the energy into the electrical grid.

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Proposed CapX 2020 transmission line characteristics

The conductors, structure type, configuration, right-of-way parameters and other design characteristics of the 345-kilovolt (kV) and 230-kV lines proposed by CapX 2020 will be considered by the Minnesota Public Utilities Commission and other relevant regulatory bodies in Wisconsin, North Dakota and South Dakota, as part of the approval process. The characteristics of any associated 161-kV lines will be decided by either the relevant state regulatory agency or a local governmental authority.

In addition to line voltage (i.e. 345-kV, 230-kV), typical determining factors in deciding the type and configuration of a structure are conductor number and size, wind or ice loads, terrain, structure spacing, right-of-way width and existing buildings adjacent to the corridor for the proposed lines.

Transmission substation

H-frame structure

345-kV line characteristics

CONDUCTORS. Each phase would consist of bundled aluminum stranded, steel core conductors sized to carry the appropriate amount of electricity. CapX 2020 proposes that the same conductor and bundled configuration be used for all of the 345-kV single circuit and double circuit transmission lines in the Group 1 projects.

STRUCTURES. For 345-kV lines, single steel poles are suitable for single or double circuits and wooden or steel H-frame structures can be used for single circuits.

Single pole structures are made of self-weathering or galvanized steel and placed on concrete foundations. Single circuit steel poles vary in height from 120 to 150 feet and double circuit structures vary from 140 to 170 feet. Spans (or distance) between structures range from 800 to 1000 feet.

H-frame structures are two wood or steel poles with wood or steel cross bracing and conductor supports. They can be embedded in the ground without a foundation and vary in height from 100 to 150 feet, depending on the span between structures. These structures are suitable only for single circuit configurations.

RIGHT-OF-WAY. A single or double circuit 345-kV line typically requires a 150-foot wide right-of-way. A narrower right-of-way may be acceptable where a transmission line is located adjacent to a pre-existing line, road or pipeline corridor.

Single circuit single pole structure

230-kV line characteristics

CONDUCTORS. Each phase would consist of bundled aluminum stranded, steel core conductors sized to carry the appropriate amount of electricity.

STRUCTURES. For 230-kV lines, single steel poles are suitable structures for single or double circuits and wooden or steel H-frame structures can be used for single circuits. Single circuit steel poles vary in height from 75 to 120 feet and double circuit steel poles vary from 95 to 145 feet. Spans between structures range from 600 to 900 feet. H-frame structures for 230-kV lines vary in height from 90 to 120 feet, depending on the span between structures.

RIGHT-OF-WAY. A 230-kV line typically requires a 125-foot right-of-way.

Double circuit single pole structure

Why don't the CapX 2020 proposals include underground lines?

The proposed CapX 2020 Group 1 projects call for overhead lines. Underground lines usually are used only in heavily congested urban areas and when there is no viable overhead corridor, such as near an airport. Lines normally are buried only for short distances – a few miles at a time.

The two biggest difficulties with burying lines are cost and the time required to make repairs if there are failures. An equivalent underground line can cost more than 10 times the amount of an overhead line, and it creates technical and operational challenges. Significantly more time is necessary to locate and diagnose a problem on an underground line, and repairs can disrupt service for extended periods. Installing underground lines also can have a considerable environmental impact.

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Understanding Easements and Rights-of-Way

When people talk about building new transmission lines, they often refer to an "easement" or a "right-of-way" (ROW). Although the terms often are used interchangeably, they are distinct concepts.

What is an easement?

An easement is a permanent right authorizing a person or party to use the land or property of another for a particular purpose. In this case, a utility acquires certain rights to build and maintain a transmission line. Landowners are paid a fair price for the easement and can continue to use the land for most purposes, although some restrictions are included in the agreement. The easement instrument is the legal document that must be signed by the landowner before the utility can proceed.

What is a right-of-way?

A right-of-way is the actual land area acquired for a specific purpose, such as a transmission line or roadway.

What is the difference between an easement and a right-of-way?

Simply put, an easement is a land right and a right-of-way is the physical land area upon which the facilities (transmission line, roadway, buildings, etc.) are located.

How long does an easement last?

Easements are perpetual and are not subject to termination or expiration. Once an easement is signed, it becomes part of the property record. The utility, the landowner who signed the easement and all future owners of the property are bound by the terms of the easement agreement. The utility can, at some point, choose to release the easement rights if it removes the transmission line and abandons the right-of-way.

How are landowners paid for an easement?

Landowners typically are given a one-time payment based on fair market value for easement rights to their land. Landowners can elect to spread the payment out over time. For instance, landowners can choose to receive installments with interest paid annually on the remaining balance. Traditionally, the easement payment is based on a percentage of the appraised land value. Also, of course, the majority of land still is usable, particularly in agricultural settings where farmers can continue to use the land for raising crops or as pasture.

Landowners also are eligible for reasonable compensation for property damage that may occur when the transmission line is constructed and in the future during repair and maintenance, as described in the easement document.

Who pays property taxes for the right-of-way on which the transmission line is constructed?

The landowner continues to pay property taxes on the right-of-way, although some states, including Minnesota, may provide landowners a property tax credit in proportion to the length of the transmission line that crosses their property.

What easement rights will be needed for the construction of a power line?

The CapX2020 projects will require easements that allow for surveying, construction, operation and maintenance of a transmission line across a defined right-of-way located on the landowner's property. These easements will include the right to clear, trim and remove vegetation and trees from within the right-of-way, as well as tall and dangerously leaning trees adjacent to the right-of-way that may threaten the line if they fall.

What activities are allowed within the easement area?

Land within the right-of-way may be used for any purpose that does not interfere with the construction, operation or maintenance of the transmission line. In agricultural areas, the land may be used for crop production and pasture. In areas where the land will be developed, streets, lawn extensions, underground utilities, curbs and gutters, etc., may cross the right-of-way with prior written permission from the utility.

Why are there restrictions on the land?

Providing electrical energy is an essential public service, and some restrictions are necessary within the right-of-way to maintain reliability. Utilities have determined that the best way to prevent outages is to restrict the placement of structures within the right-of-way. If a building or structure in the right-of-way caught fire, it could burn into the power line and take the line out of service for an extended time. Additionally, buildings or other structures in the right-of-way can hamper maintenance crews from accessing the line if an outage occurs.

What are the main building and plant restrictions in the easement?

Conditions will vary, but the primary building and planting restrictions within the right-of-way are in place to ensure that a utility has the necessary clearance for operation and maintenance, and to comply with the National Electrical Safety Code. Restrictions within the right-of-way strip prohibit constructing buildings and structures, storing flammable materials and planting tall-growing trees.

Why doesn't the utility just buy the land instead of negotiating an easement?

Utilities' main interest is in simply acquiring the rights to a piece of land in order to build and maintain a transmission line. Owning the land is not required to do this.

Landowners, for the most part, prefer to retain ownership of the property so they can maintain better control over its use within the easement restrictions. Often, retaining ownership allows the landowner continued use of the property for things such as agricultural operations, yard extensions or open space, allowing the property to continue to contribute positively and productively to the owner and the public. Most adjacent uses pose no threat to the line and do not create a public hazard.

Generally, how large is the area covered by an easement or a right-of-way?

The voltage and the type of transmission structure being built determine the size of the right-of-way. For 345-kV lines, the typical right-of-way is up to 150 feet wide.

What happens when the landowner and utility cannot agree on the easement or payment?

If an agreement cannot be reached, a utility may pursue a state-governed process called condemnation, under which a judge and a panel of impartial individuals decide whether the easement is needed and its value. The condemnation process varies from state to state. In general, states establish strict procedures for determining the amount a landowner should be paid by a utility for acquiring a right for construction and maintenance of a transmission line. A government's right to acquire – or authorize the acquisition of – private property for public use, with just compensation being given to the owner, is called eminent domain.

In some states when a transmission line crosses a rural property, a landowner, under certain conditions, may request that the utility purchase the entire property.

* *This fact sheet is not a legal document. It is meant to provide general information about easements and rights-of-way. Individual state statutes differ and each utility has its own process.*

Transmission planning through construction: A decade-long process

Public utilities have a legal obligation and responsibility to assess the electric system and plan and build the facilities necessary to deliver reliable electric service to customers. Building new transmission facilities to carry electricity isn't a quick and simple process. It can take up to 10 years to assess needs, plan and study alternatives, prepare and file regulatory documents, host public meetings, negotiate easements, and engineer and construct the lines. Numerous regulatory agencies are also involved in the process. Below is an in-depth look at the timeline in Minnesota.

System assessment (ongoing)

Transmission planners continually evaluate the transmission system, and based on load growth forecasts (customer electricity use) and other factors identify system additions or enhancements that need to be made. Some factors include: system performance, reliability standards, interconnection requests for new customers and power plants, need for replacement of aged or undersized facilities, eliminate constraints, and regulatory and legislative energy policy goals. Most utilities update their plans every year.

Evaluate alternatives (1-2 years)

Planners use sophisticated computer models that simulate the operation and performance of the transmission system under various scenarios. When system needs or inadequacies are encountered during evaluation, alternatives are identified – upgrading a line to a higher voltage, adding substations or proposing new transmission lines, for example – and improvements are made to ensure the system continues to deliver reliable electricity. Planners work with neighboring utilities and other stakeholders to identify preferred upgrades and alternatives. Cost and environmental and social impacts are considered. Planners work with the Midwest Independent Transmission System Operator (MISO) and the Mid-Continent Area Power Pool (MAPP) to conduct this planning, including open forums attended by regulatory agency staff and other interested persons and organizations.

Project scope (six months)

After evaluating the alternatives, utilities develop detailed project scopes, including budget, engineering details and timing. Both preferred and alternative projects and/or routes are further developed.

Preparation of regulatory documents (1-1.5 years)

In Minnesota, the most common document required for regulatory approval of a transmission line is a Certificate of Need (CON) application, which includes a project overview with specific details on need, project descriptions, electric projections, system configuration, policy issues, alternatives, general routes, cost and environmental information. Similar regulatory approval processes are required in all states.

Certificate of Need application (1-1.5 years)

Depending on the project's scope, a state regulatory agency can take 12 months or more to review the application. In Minnesota, an administrative law judge (ALJ) is appointed by the Public Utilities Commission (PUC) to oversee the proceedings, including scheduling, filing of testimony, intervenor involvement, and public and evidentiary hearings. After hearings are complete, the ALJ reviews all documents, testimony and public comments, and makes a recommendation to the PUC on whether the CON should be granted. Both written and verbal comments, as well as attendance at environmental scoping meetings, are taken throughout the proceedings and included in the official record. The PUC makes the final determination on the need for the proposed transmission lines.

Route proposal development/route application filing (1-3 years)

Route development teams use state-mandated criteria to develop at least two route options. The PUC evaluates the application, holds public hearings on the potential routes and certifies the final route. In Minnesota, the Department of Commerce, Office of Energy Security will develop an Environmental Impact Statement. Public comments can be submitted throughout the process. In some cases, the Route Permit application is combined with the Certificate of Need application into a single proceeding.

Agency filings (1 year)

Depending on the type of land that could be impacted, various federal agencies may be involved in reviewing and approving environmental aspects of the transmission line proposal. In most cases an Environmental Assessment Worksheet is prepared. In others, a more detailed Environmental Impact Statement is prepared.

Easements (1 year)

When a Route Permit application is approved, utilities begin negotiations with landowners to acquire easements for construction and maintenance of the project.

Engineering/surveying (1 year)

Detailed, site-specific surveying is done concurrent with easement negotiations.

Materials acquisition (1 year)

Construction materials – concrete, transmission line towers and conductor/wire – can often take up to one year or more to obtain. During this time, preparation for construction occurs, including scheduling construction crews and identifying staging areas.

Construction (1-2 years)

Depending on the line's scope and size, construction can take two years or more.

Energizing the line

The newly constructed line is connected to the existing transmission grid and tested for reliability and safety. Once it passes all testing requirements, it is energized to deliver electricity.

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Upper Midwest High Voltage Transmission Projects 1967-2007

The last significant additions made to the high voltage transmission system in Minnesota and the surrounding areas were about 25 years ago.

The following is a list of major transmission line construction projects from the last 40 years. This list does not include short sections of transmission line or some conversions from single circuit to double circuit.

1967	King power plant, Oak Park Heights, MN to Eau Claire, WI, 103 miles (345-kV AC)
1967-1973	Minneapolis Metro Loop and initial outlets King, Sherburne County Units I&II, Monticello and Prairie Island Units I&II (345-kV AC)
1967-1979	Taconite Development, NE MN, 420 miles (230-kV AC)
1968	Maple River, ND to Wahpeton, ND, 55 miles (230-kV AC)
1970	Maple River, ND to Winger, MN, 61 miles (230-kV AC)
1970	Grand Forks, ND to Winger, MN, 59 miles (230-kV AC)
1970	Grand Forks, ND to the Canadian Border (Manitoba Hydro), 79 miles (230-kV AC)
1970	Center, ND to Maple River, ND, 211 miles (230-kV AC)
1974	Big Stone Unit I – Outlets (Commercial 1975) To Hankinson, ND, 70 miles (230-kV AC) To Gary, SD, 33 miles (230-kV AC)
1975	Stanton, ND to Ft. Thompson, SD, 244 miles (345-kV AC) Stanton, ND to Watertown, SD, 283 miles (345-kV AC)
1977	Square Butte, Center, ND to Duluth, MN, 465 miles (250-kV DC)

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1978	CU Line, Underwood, ND to Delano, MN, 430 miles (400-kV DC)
1979	Winger, MN to Wilton, MN, 53 miles (230-kV AC)
1979	Canadian Border (Ridgeway) to Moranville, MN, 116 miles (230-kV AC)
1979	Dorsey, Manitoba to Chisago, MN, 680 Miles (500-kV AC)
1979	Center, ND to Maple River, ND (The 211 mile Center – Maple River line was energized in 1970. A voltage conversion to 345-kV that involved no new line construction was completed in 1979)
1981	Beulah, ND to Center, ND, 35 miles (345-kV AC)
1983	Harvey, ND to Underwood, ND, 72 miles (230-kV AC)
1984	Beulah, ND to Huron, SD, 299 miles (345-kV AC)
1993	Dorsey, Manitoba to Chisago, MN, upgrade (The Dorsey-Chisago line was energized in 1979 with a capacity of 800 MW. In 1993 the power transfer capacity of the line was increased to 1,400 MW with the addition of series compensation. This increase in capacity did not involve new transmission line construction.)
2002	Harvey, ND to Glenborough, Manitoba, 97 miles (230-kV AC)
2007	Duluth, MN to Weston, WI, 220 miles (345-kV AC)
2007-2008	Lakefield Junction, MN to Split Rock, SD, 88 miles (345-kV AC)

CapX2020

Delivering electricity you can 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
WPPI Energy
Xcel Energy

Electricity usage continues to climb

Plus, thirteen simple ways to save both energy and money

Why does the electric transmission grid need to be expanded? The simple answer: Because we're using more electricity than we did just a few years ago – and it's expected to grow another 40 percent by 2030 (U.S. Energy Information Administration).

In the Midwest, for example, sub-zero temperatures pushed electricity demand to an all-time winter peak of 103,254 megawatts in mid-December 2008.

Our electricity demand has risen in proportion both to the growing number of electronic items and appliances we depend on and to the increasing size of our homes. While our electricity usage has increased, our expectations have remained constant: We expect reliable power when we need it.

Meanwhile, the electric transmission grid in the Upper Midwest hasn't had a major upgrade in nearly 30 years. The CapX2020 proposed transmission lines would address these growing electric needs.

Americans are using more electricity

- In 2007, the average household had 25 consumer electronic products, such as computers, DVD players, video game consoles, cordless phones, digital cameras and high-definition televisions. In 1975, the average household had less than two (Consumer Electronics Association).
- More than 80 percent of Americans have a cell phone and most are recharged daily (CEA consumer survey).
- 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 utility bills. According to the U.S. 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 American home.
- "Phantom loads" refers to the energy used by appliances and electronic devices – TVs, DVD players, microwaves and computers, to name a few – 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 (U.S. Department of Energy), costing the average household up to $1,000 annually.
- Computer always on? If so, it uses as much power as an energy efficient refrigerator, 70 to 250 watts.

Larger homes use more electricity

- The average single-family home in the Midwest is nearly 45 percent larger today than it was in 1980 (2008 Buildings Energy Data Book).
- The percentage of homes with central air conditioning in Minnesota more than doubled in the past 25 years – jumping from just 27 percent in 1983 to 66 percent in 2006 (2006 Xcel Energy Minnesota Home Use Study).
- All homes – both new and existing – have more electric appliances than ever before. Thirty percent of homes in 1970 had an electric clothes dryer; in 2007, that number nearly tripled to 80 percent of households.

continued on back

www.capx2020.com

Average homes have more TVs than people

- Today, 99 percent of U.S. households own a TV; two-thirds have three or more.
- Computers and televisions now account for 10 percent of a home's electricity use. The average household energy bill is expected to grow between 12 and 15 percent by 2015 because consumers are switching to plasma, LCD and projection televisions.
- A 42-inch plasma television also uses two-and-a-half times more electricity than a standard 27-inch TV.
- Entertainment centers – TVs, cable or satellite boxes, DVD players and game consoles – can have an energy price tag of $200 annually. Compare that to the $30 price tag to operate a regular 28-inch TV each year.
- In January 2007, 41 million U.S. households owned a home theater system, more than double January 1998's 18 million (Consumer Electronics Association).

WAYS TO SAVE ENERGY

Looking for ways to save energy and a little money doing so? Follow these tips.

- Turn lights off when they're not needed. The average household spends 10 percent of its budget on lighting (U.S. Department of Energy). Switching to compact fluorescent lamps (CFLs) could save between 50 and 75 percent on monthly lighting costs, or $30 per bulb over a CFL's life. Changing out just five 100-watt incandescent light bulbs can save $7.50 per month.
- Water heating can account for up to 30 percent of your energy bill. Save up to 10 percent by lowering your water heater temperature 20 degrees, from 140 to 120 degrees.
- Shave up to 20 percent off your energy bill annually by installing a programmable thermostat. Set it back 10 to 15 percent for eight hours a day. Your best bet: Install it away from drafty areas, like windows and doors, so your heating system doesn't run too often.
- During heating season, clean or replace your furnace filters monthly.
- Open window coverings during the day to let warm sunshine in; close them at night to keep the heat in and the cold out.
- Plug air leaks in your home using inexpensive foam strips or caulking, which can cut heating and cooling costs by 5 to 30 percent.
- Washing clothes? Opt for the cold-water cycle – 90 percent of the energy used for washing is for heating water – and save up to $60 per year.
- Install energy and water-saving showerheads and aerators.
- Turn off the digital photo frame – it costs about $9 per year to power – and the cable or satellite set-top box, which costs another $27. That's about half of what an Energy Star refrigerator consumes.
- Turn off your computer, which loses about 50 percent of its energy as heat. Even simply putting it to "sleep" can save about $60 per year.
- Plug home electronics into powerstrips, and turn them off when the equipment isn't in use.
- Unplug your microwave. It uses more energy when it's not in use than it does when it is.
- Get rid of the second refrigerator or freezer.

For other energy-saving tips, visit the following Web sites:

http://www.xcelenergy.com/SiteCollectionDocuments/docs/UsingElectricityAtHome.pdf

www.responsiblebynature.com

http://xeenergysmart.xcelenergy.com.evohst.org/flash-page

http://www.mnpower.com/powerofone/one_home/do_at_home/index.htm

http://apps1.eere.energy.gov/consumer/

http://www.energysavers.gov/

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Missouri River Energy Services
Otter Tail Power Company
Rochester Public Utilities
Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

Electric and Magnetic Fields (EMF): the Basics

Electric charges are present in all matter, but most objects are electrically neutral because positive and negative charges are present in equal numbers. When the balance of electric charges is altered, electrical effects are experienced, such as the attraction between a comb and our hair or the drawing of sparks after walking on a synthetic rug in the wintertime. The voltage on an electrical wire is caused by electric charges that can exert forces on other nearby charges, and this force is called an 'electric field' (E). When charges move they produce an electric current that can exert forces on other electric currents, and this force between electric currents is called a 'magnetic field' (M).

EMF exists wherever electricity is produced or used, and EMF surrounds any electrical appliance or wire that is conducting electricity. Everyone is exposed to these fields at home when you turn on a lamp, e-mail a friend, or use an electric oven or microwave to cook your dinner. In all likelihood, you're surrounded by EMF from electrical equipment in your workplace, too.

The electric power we use daily is a 60-Hertz (Hz) alternating current, meaning that electric charges move back and forth 60 times a second. We use 'EMF' in this fact sheet in reference to these 60 Hz fields, called 'extremely low frequency' or 'power frequency' fields, which are distinct from the much higher frequency fields associated with radio and TV waves, and cell phone signals.

What are electric and magnetic fields?

Electric fields are created by voltage – the higher the voltage, the stronger the field. Anytime an electrical appliance is plugged in, even if it isn't on, an electric field is created in its vicinity. But these fields are easily blocked by walls, trees, and even your clothes and skin, and the farther away you move from the source of the electric field, the weaker it becomes. Moving even a few feet away from an appliance makes a big difference in the strength of the field that you're exposed to. Electric fields are measured in kilovolts per meter (kV/m).

Magnetic fields, measured in milliGauss (mG), are produced by electric current and only exist when an electric appliance is turned on – the higher the current, the greater the magnetic field. As with electric fields, the strength of a magnetic field dissipates rapidly as you move away from its source. However, unlike electric fields that are easily blocked by ordinary materials, magnetic fields do not interact with and are not affected by walls and clothes and other barriers.

Research studies on the biological effects of EMF often focus on magnetic fields because they are not blocked by ordinary materials and because power line magnetic fields can create weak electric currents in the body by a process called 'induction'. Induced currents from 60 Hz EMF are weaker than the natural currents found in the body, such as those from the electrical activity generated by your brain or your heart. Such induced currents are also much weaker than the currents you might experience from a mild electric shock.

Why are you calling them electric and magnetic fields instead of electromagnetic fields? Is there a difference?

These terms are often used interchangeably, and both electric and magnetic fields from power lines and electromagnetic fields may be abbreviated as EMF. However, there are important differences between power line EMF and radio waves.

The frequency (i.e., the rate of time variation) of fields produced by the generation, transmission and use of electricity – typical of most household and office appliances and power lines – are low, and electric and magnetic fields exist separately. At higher frequencies, such as with radio or TV signals, the fields are interrelated, and are more accurately described by the term 'electromagnetic'.

Radio and TV electromagnetic waves are meant to transmit away from the antenna and carry radio frequency energy to the receiver. The EMF from power lines is too low in frequency to carry energy away, and the electric power stays on the utility lines.

Thus, the EMF from power lines should not be called radiation or emissions. More importantly, neither power line EMF nor radio electromagnetic waves should be confused with ionizing radiation, such as X-rays. Because of its dramatically higher frequency, ionizing radiation (like X-rays) has enough energy to alter chemical bonds and damage biological molecules, something that lower frequencies in the electromagnetic spectrum (power lines, radio, TV, microwaves, infrared) cannot do.

What are some of the things in my home and at work that produce EMF?

Anything that generates, distributes or uses electricity creates electric and magnetic fields. Below is a list of some appliances and machines commonly found in homes or offices and the magnetic field levels found nearby.

Figure 1. **Typical 60 Hz magnetic field levels from some common home appliances**

	Magnetic field 6 inches from appliance (mG)	Magnetic field 2 feet away (mG)
Electric shaver	100	–
Vacuum cleaner	300	10
Electric oven	9	–
Dishwasher	20	4
Microwave oven	200	10
Hair dryer	300	–
Computers	14	2
Fluorescent lights	40	2
Faxogram machines	6	–
Copy machines	90	7
Garbage disposals	80	2

Source: National Institute of Environmental Health Services / National Institutes of Health: EMF Associated with the Use of Electric Power

We also encounter a wide variety of EMF in other ways – natural and man-made. The earth's atmosphere creates slowly varying electric fields, and thunderstorms produce very intense electric fields that are occasionally discharged by a lightning bolt. The earth's core produces a steady magnetic field, as can easily be demonstrated with a compass needle. This magnetic field has a strength of about 550 mG, and this knowledge provides a perspective on the size of the magnetic fields produced by an electric transmission line.

Magnetic fields from the earth or from small magnets exert forces on electric currents or on other magnetic objects, as when a compass needle orients toward a magnet. Magnetic fields are common in our lives. Many children's toys contain magnets and many of us use refrigerator magnets, generating fields of abouty 100,000 to 500,000 mG. An increasingly common diagnostic procedure, magnetic resonance imaging (MRI), uses fields of about 20,000,000 mG. If you were to spin a magnet at a rate of 60 times a second, you would get an alternating magnetic field like the fields produced by power lines.

How can I find out what EMF levels I'm exposed to at home and at work?

You can monitor your daily exposure to magnetic fields by wearing a personal exposure meter (called a magnetometer or gaussmeter) or by keeping one close to you. This is the most accurate way to measure your true exposure to magnetic fields during the course of your normal activities. Other meters can be put in a location – like your kitchen or home office – to measure typical EMF levels in that spot. This type of measurement isn't an accurate measure of personal exposure, however, because it doesn't take into account your distance from the source of the fields or the amount of time you might spend in that place.

Contact your local electric service provider. Most utilities offer a free measurement service to customers for their homes or businesses.

What are 'typical' residential exposures to magnetic fields?

Exposure levels vary from individual to individual and from home to home, but a study by the Electric Power Research Institute (EPRI) puts the background levels of power line magnetic fields in the typical U.S. home at between 0.5 mG and 4 mG with an average of 0.9 mG. Levels rise the closer you get to the source of the field. Most people are exposed to greater magnetic fields at work than in their homes. See Figure 1.

What EMF levels are found near transmission lines?

All transmission lines produce EMF. The fields are the strongest directly under the lines and drop dramatically the farther away you move. Contact your local utility to find out EMF information about a particular transmission line near you. See Figures 2a-c.

Figure 2a. **Typical EMF Levels for a 161-kV Transmission Line**

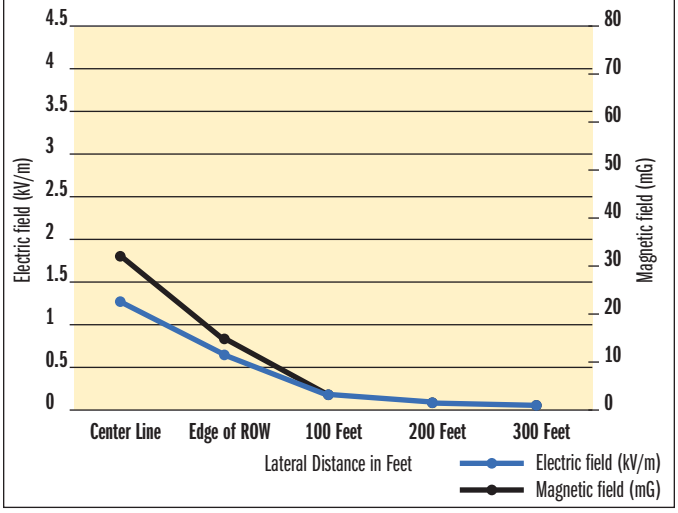


Figure 2b. **Typical EMF Levels for a 230-kV Transmission Line**

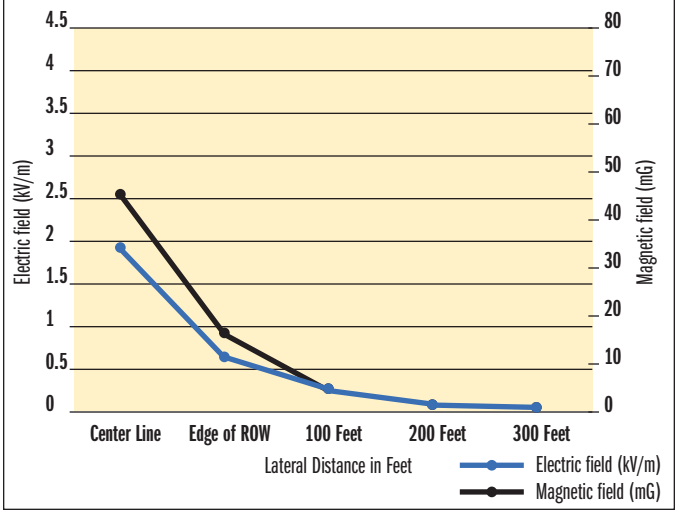
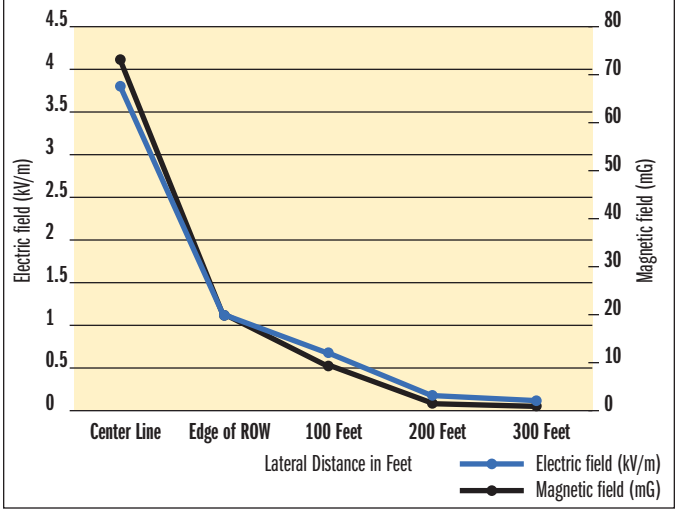


Figure 2c. **Typical EMF Levels for a 345-kV Transmission Line**



Source: CapX 2020 Certificate of Need application to the Minnesota Public Utilities Commission for three 345-kV transmission line projects (8/16/2007, MPUC Docket No. ET02, E-002/CN-06-1115)

Do underground lines reduce EMF levels?

Because magnetic fields are unaffected by ordinary materials, burying power lines won't keep the fields from passing through the ground. Additionally, underground lines can produce higher levels of magnetic fields directly above them at ground level because these lines are located closer to you than overhead lines, although the strength of the magnetic field from underground lines falls away more quickly with distance than from overhead lines. But, compared to overhead lines, underground lines are significantly more expensive to install, more difficult to repair and can have greater environmental impacts. Since current research results provide no conclusive connection between EMF exposure and health effects, burying lines isn't a reasonable alternative.

Are there state or federal standards for EMF exposure?

There are no federal standards limiting residential or occupational EMF exposure. The EMF levels produced by appliances vary from manufacturer to manufacturer and model to model. The designs of many newer model appliances, in general, often produce lower fields than older models. There is no federal certification program on EMF levels so beware of advertisements on appliances making claims of federal government certification of low or zero EMF levels.

Do exposures to power line EMF affect my health?

This issue has been studied for more than 30 years by government and scientific institutions all over the world. The balance of scientific evidence indicates that exposure to EMF does not cause disease. (See the **Sources and useful links** section of this fact sheet for more information on studies about EMF and health.)

In 2002 the Minnesota Department of Health released "A White Paper on Electric and Magnetic Field Policy and Mitigation Options." Regarding the links between EMF and health effects, the report states:

"The Minnesota Department of Health concludes that the current body of evidence is insufficient to establish a cause and effect relationship between EMF and adverse health effects." (page 36)

- The entire 2002 report is available at www.capx2020.com/documents.html.

Does EMF interfere with pacemakers or other medical devices?

High levels of power line EMF can interfere with a pacemaker's ability to sense normal electrical activity in the heart. Most often, the electric circuitry in a pacemaker might detect the interference of an external field and direct the pacemaker to fire in a regular, life-preserving mode. This isn't considered hazardous and is actually a life-preserving default feature. There have been cases with dual-chamber pacemakers triggering inappropriate pacing before the life-preserving mode takes over.

The American Conference of Governmental Industrial Hygienists (ACGIH) issued guidelines for EMF exposure for workers with pacemakers or implantable defibrillators. Maximum safe exposure for workers with these medical devices at 60 Hz (the frequency of most transmission lines) is 1 G (1,000 mG) for magnetic fields and 1 kV/m for electric fields.

Nonelectronic metallic implants (artificial limbs, screws, pins, etc.) can be affected by high magnetic fields like those produced by MRI devices but are generally unaffected by the lower magnetic fields produced by most sources.

How can I reduce my exposure to EMF?

If you wish to reduce EMF levels in your vicinity you can do so by recognizing that your exposure is determined by the strength of the magnetic fields given off by things around you, your distance from the source of the field and how much time you spend in the field.

Creating distance between yourself and the sources of EMF is the easiest way to reduce exposure. Standing back – even an arm's length away – from appliances that are in use is a simple first step. Remember, EMF decreases dramatically with distance. This is more feasible with some appliances than with others, but the following simple recommendations will help you reduce your EMF exposure at home:

- Move motor-driven electric clocks or other electrical devices away from your bed.
- Be aware that electric motors change electricity into mechanical energy by using magnetic fields, so any motorized appliance (e.g., hairdryers, shavers, fans, vacuum cleaners, air conditioners) will produce magnetic fields.
- Stand away from operating appliances that use a lot of electricity.
- Sit a few feet away from the TV and at least an arm's length from the computer screen. Liquid crystal or plasma displays (LCDs), however, produce very low levels of EMF compared to the older cathode-ray tube (CRT) displays.
- Limit the time you're exposed to a magnetic field by turning appliances, like computer monitors, off when you're not using them.

Sources and useful links

The following are links to more information and studies on EMF:

- The National Institute of Environmental Health Services (NIEHS) offers information on a variety of EMF topics. In June of 2002 they prepared *EMF: Electric and Magnetic Fields Associated with the Use of Electric Power, Questions and Answers.* This booklet, along with other helpful links, can be found at www.niehs.nih.gov/health/topics/agents/emf/.
- "A White Paper on Electric and Magnetic Field Policy and Mitigation Options," prepared by the Minnesota Interagency Working Group on EMF Issues. www.capx2020.com/documents.html
- Electric and Magnetic Fields: Facts, Western Area Power Administration. www.wapa.gov/newsroom/pdf/emfbook.pdf
- "Electromagnetic fields and public health," World Health Organization fact sheet, www.who.int/mediacentre/factsheets/fs322/en/index.html. More general information on EMF can be found at www.who.int/peh-emf/en/.
- "Unproven Risks – Non-Ionizing Radiation" (2008), The American Cancer Society. www.cancer.org/docroot/NWS/content/NWS_2_1x_The_Environment_and_Cancer_Risk.asp

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Rochester Public Utilities
Southern Minnesota Municipal Power Agency
WPPI Energy
Xcel Energy

Birds and Power Lines

Utilities use several strategies to reduce the number of birds that are injured and killed when they contact power lines or electrical equipment. The strategies are:

- **Preventive** – conducting risk assessments and using avian-safe design standards where possible.
- **Reactive** – documenting mortalities, notifying resource agencies and applying remedial measures where appropriate.
- **Proactive** – educating employees and being involved in organizations that conduct avian interaction research.

Some basic information regarding bird power line interactions is provided below. For more information go to www.aplic.org.

Roosting and Nest Management

Utility structures and equipment are attractive to birds for roosting and building nests. Utilities try to minimize the risk of electrocution or injury to birds, of damage to electrical equipment and of outages to customers that may result when birds come in contact with power lines and structures. Perch discouragers are used to try to keep birds from perching or roosting on utility equipment. Nest management programs include installing nest boxes or platforms in safe areas on or near utility structures, where warranted. Additionally, utility personnel are educated on nest reporting, nest removal and platform construction.

Nest management

Electrocution

Electrocution of birds typically is not associated with transmission lines greater than 138 kilovolts (kV) because generally the electrical components are far enough apart to avoid a bird making contact with two of them and fatally completing a circuit. Problems that do arise can be corrected in two primary ways:

1) **Isolation:** Moving the components farther apart to get the necessary clearance.
2) **Insulation:** Using covers on various electrical components to prevent contact with the component that would cause the electrocution.

Collisions

Many factors can affect the likelihood of bird collisions with power lines:

- Habitat (if the line bisects critical habitat)
- A bird's size and maneuverability
- Flight altitude
- Bird behavior (chasing prey, interactions within or between species, flocking)
- A bird's age and gender
- Time of day
- Weather (fog, high winds, heavy precipitation)
- Land use (refuges, agricultural fields, landfills, cooling ponds)
- Topography
- Line configuration (grounding wire is thinner and harder to see; lines configured vertically tend to be less visible that those configured horizontally)
- Human disturbance (hunting, agricultural and recreational activities)

Clamp-on markers

Collision Minimization Measures

Pre-construction efforts

- Use vegetation, topography or man-made structures to shield lines
- Cluster lines together
- Site lines away from obvious flyways if possible

Post-construction efforts

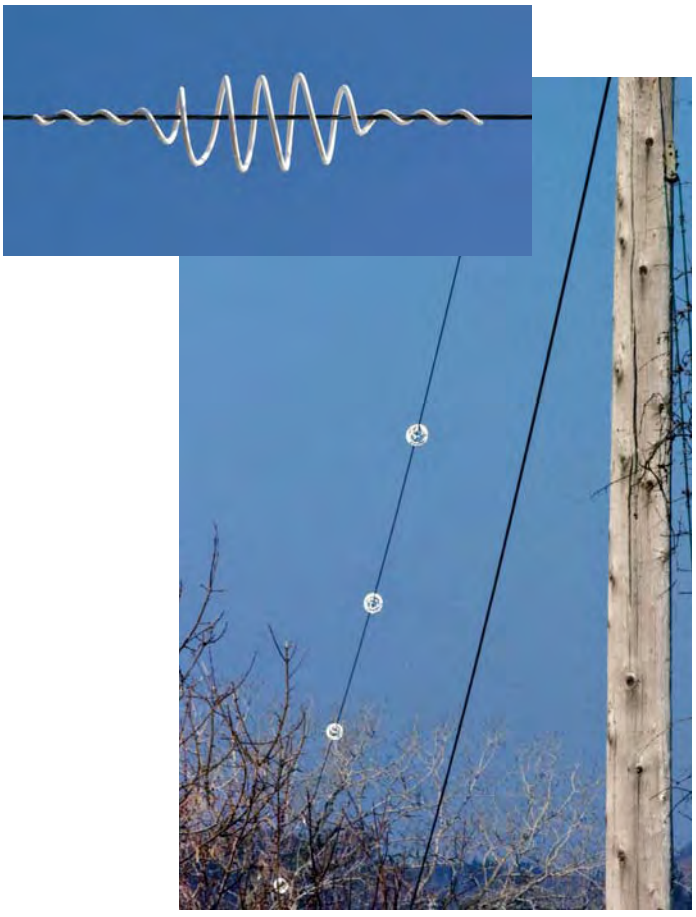
- Modify habitats
- Create habitats on the same side of the power line to minimize crossings
- Minimize human activities/disturbance near the line (educational process)

Marking Lines

Marking lines with various types of markers can decrease but not eliminate bird collisions. The different types of markers vary in effectiveness. Devices include bird and swan flight diverters and clamp-on markers. Examples of these devices are shown in the photos.

Utilities have used a variety of these markers on their lines. The decision to use them is based on:

- Effectiveness
- A line's voltage rating
- The markers' weight
- Wind/ice loading factors
- Durability
- Ease of installation
- Effect on the viewshed
- Susceptibility to vandalism



Bird flight diverters

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Appendix H.
Public Scoping Comment Form

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THANK YOU FOR TAKING THE TIME TO PARTICIPATE.

Please submit comments by the following means:

- Leave this form at the public meeting.
- Mail the form or a letter to the address below.
- Submit comments electronically at www.capx2020.com/Projects/project_tc-roch-lac.html

Please mail this form or electronically submit your comments by July 25, 2009.

FOLD HERE

1400 Independence Ave. SW, MAIL STOP 1571
Washington, DC 20250-1571

Stephanie A. Strength
1400 Independence Ave. SW, MAIL STOP 1571
Washington, DC 20250-1571

TAPE HERE (DO NOT STAPLE)

Comment Form
Public Scoping Meetings

We need your input. Please take a few minutes to provide your comments or questions for the USDA RUS Federal Environmental Impact Statement process and return your completed form today or mail by July 25, 2009. Your comments help in the planning and implementation of the project. Thank you.

Completing this form will automatically add you to our mailing list. If you prefer to not be on the mailing list, please check the box below.

☐ ***I do not wish to be on the project mailing list***

Which meeting did you attend? _____

Please check the following issues that are important to you for transmission line siting.

☐ Project Purpose and Need
☐ Visual / Aesthetic resources
☐ Proximity to residences
☐ Land use (agriculture, residential, recreation)
☐ Water resources (floodplains, river crossings)
☐ Biological resources (wildlife habitat, raptors)
☐ Historic and cultural sites
☐ Radio or television interference
☐ Noise
☐ Health and safety
☐ Other: _____

What additional key issues should be addressed when assessing the potential impacts of this project?

_____
_____
_____
_____
_____
_____
_____
_____

If you own property in one of the proposed corridors, please indicate all the existing uses of your property below:

☐ Agriculture ☐ Residential ☐ Conservation Easement

☐ Commercial ☐ Industrial ☐ Other: _____

Please describe any special uses or circumstances on your property that should be considered when assessing the Project. Please indicate the location of your property.

In your opinion, what are the most sensitive resources (biological, cultural, recreational, etc.) in the Project area and why?

In your opinion, was the project description, purpose, and need for the project adequately explained? If not, what additional information is needed?

Please tell us how to reach you.

CONTACT INFORMATION

Name: _____

Representing (Optional): _____

Mailing Address: _____

City: _____ **State:** _____ **Zip Code:**

Daytime Phone (Optional): _____

Public participation for the Federal, Minnesota, and Wisconsin permitting processes will be ongoing for the Hampton- Rochester- La Crosse 345 kV Transmission Project. If you sign up for the mailing list, you will be notified when opportunities to participate are being planned.

Please plan to continue your involvement in the process and provide your comments. We appreciate your input.