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12300 Elm Creek Boulevard • Maple Grove, Minnesota 55369-4718 • 763-445-5000 • Fax 763-445-5050 • www.GreatRiverEnergy.com

October 27, 2011

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: Shoal Lake 115 kV Substation and Transmission Line Project

Dear Dr. Haar:

In accordance with the Power Plant Siting Act, Minn. Stat. § 216E.05, subd. 3, this letter, filed via eFiling, serves as the required notice to the Minnesota Public Utilities Commission (Commission) that Great River Energy has elected to seek local approval to construct approximately 7.75 miles of new 115 kilovolt (kV) overhead transmission line to serve a new substation near Nashwauk in Itasca County, Minnesota (see enclosed fact sheet/map). The project is needed to meet the growing electrical needs in the area.

One of Great River Energy's 28 cooperatives, Lake Country Power, proposes to construct the new "Shoal Lake" 115 kV Substation in Section 4, T57N, R23W just south of County State Aid Highway (CSAH) 56 in Nashwauk Township (see photo of typical substation on fact sheet).

Great River Energy, power supplier to Lake Country Power, proposes to construct approximately 7.75 miles of new overhead 115 kV transmission line to energize this new substation.

The project is divided into two segments as described below:

- The first five miles of transmission line will be double circuited with a new Minnesota Power 230 kV transmission line that will exit the new Minnesota Power McCarthy Lake Substation and run north through Sections 25, 24, 13, 12 and 1 of Nashwauk Township as shown on the fact sheet map. Minnesota Power will own the transmission structures and the 230 kV circuit, and Great River Energy will own the 115 kV circuit that will be strung on the same poles. The 230 kV line was permitted through the Minnesota Public Utilities Commission and an Environmental Impact Statement was prepared for the line.

- Great River Energy will construct the approximately 2.75 miles of new 115 kV transmission line west along CSAH 56 to the Shoal Lake Substation. The line will be constructed using wood poles with horizontal post insulators. When practical, Lake Country Power will attach an upgraded distribution system on wood crossarms (see photo on fact sheet). The poles will generally be 65-75 feet above ground with a 280-400 foot span between poles. Guy wires and anchors will be used to counter angles. Where guys and anchors are not practical, a laminated wood pole or steel pole on foundation may be used.

Great River Energy intends to permit the project through Itasca County. A zoning permit application was submitted to the County on October 26, 2011. Itasca County has been informed that it has 60 days to refer the permitting process to the Commission.

Questions regarding this project should be directed to Don Dewey, Itasca County Environmental Services at 218-327-2857; or Carole Schmidt, Great River Energy at 763-445-5214.

Thank you for your attention to this matter.

Sincerely,

GREAT RIVER ENERGY

Carole L. Schmidt

Carole L. Schmidt
Supervisor, Transmission Permitting and Compliance

Enclosure

cc: Affidavit of service on: General List of Interested Persons – w/encl.
Don Dewey, Itasca County Environmental Services – w/encl.
Deborah Pile, Department of Commerce – w/encl.

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Shoal Lake 115 kV substation and transmission line

GREAT RIVER ENERGY
12300 Elm Creek Boulevard
Maple Grove, MN 55369
1-888-521-0130
www.greatriverenergy.com

LAKE COUNTRY POWER
2810 Elida Drive
Grand Rapids, MN 55744
1-800-421-9959
www.lakecountrypower.com

Project Need

Lake Country Power members north of the City of Nashwauk are currently served by two substations. These substations are energized by a 23,000 volt (23 kV) transmission line built in 1958. This system can no longer support growth or the increasing demand for electric service and at times experiences low voltages.

To increase capacity and improve the electrical service, Lake Country Power will build a new substation in Nashwauk Township. The substation will be energized by a new 115 kV transmission line built by Great River Energy, power supplier to Lake Country Power. The new substation and transmission line will provide a long-term solution to the area's electric needs. The two existing substations will be retired and their electric loads transferred into the new substation.

Substation and Transmission Line

Lake Country Power will construct the new "Shoal Lake" Substation (similar to that shown right) on County Highway 56, approximately 3.5 miles west of Minnesota Highway 65 in Nashwauk Township. The substation will be fed by the new transmission line and contain a transformer that will lower the voltage to distribution levels. This substation location was chosen to bring a strong electric source to the middle of the demand area.

Typical 115 kV distribution substation

Great River Energy will build approximately 7.75 miles of new 115 kV transmission line to energize the Shoal Lake Substation (see map on back). The new 115 kV transmission line will tap the Minnesota Power 115 kV "28" Line (that is to be relocated near the new McCarthy Lake Substation at the corner of Hilltop Road and County Highway 58). For the first five miles Minnesota Power and Great River Energy will construct a double circuit 230/115 kV transmission line sharing common poles. At County Highway 56, Great River Energy's 115 kV transmission line will turn west and parallel the highway for 2.75 miles to the new substation. Where practical, the new line will overtake the existing Lake Country Power distribution system along Highway 56.

Poles and Construction

Great River Energy will construct the new line along County Highway 56 using wood poles with horizontal post insulators. The poles will generally be 65-75 feet above ground with a 280-400 foot span between poles. The shorter spans are necessary where Great River Energy overtakes Lake Country Power's distribution system. Where the distribution system is overtaken the distribution line will be attached to the transmission poles on wood crossarms (see photo). Guy wires and anchors will be used to counter angles in the line.

Typical 115 kV transmission line with distribution underbuild

Schedule

Permitting – Fall 2011
Survey/Easement Acquisition/Engineering – Winter 2011-12
Construction – 2012-2013

For project updates and information, visit greatriverenergy.com/ShoalLake or contact:

Dale Aukee, Sr. Field Representative
Great River Energy
763-445-5978
or 1-888-521-0130, ext. 5978
daukee@grenergy.com

Derek Howe
Lake Country Power
218-326-7178
or 1-800-421-9959
dhowe@lakecountrypower.com

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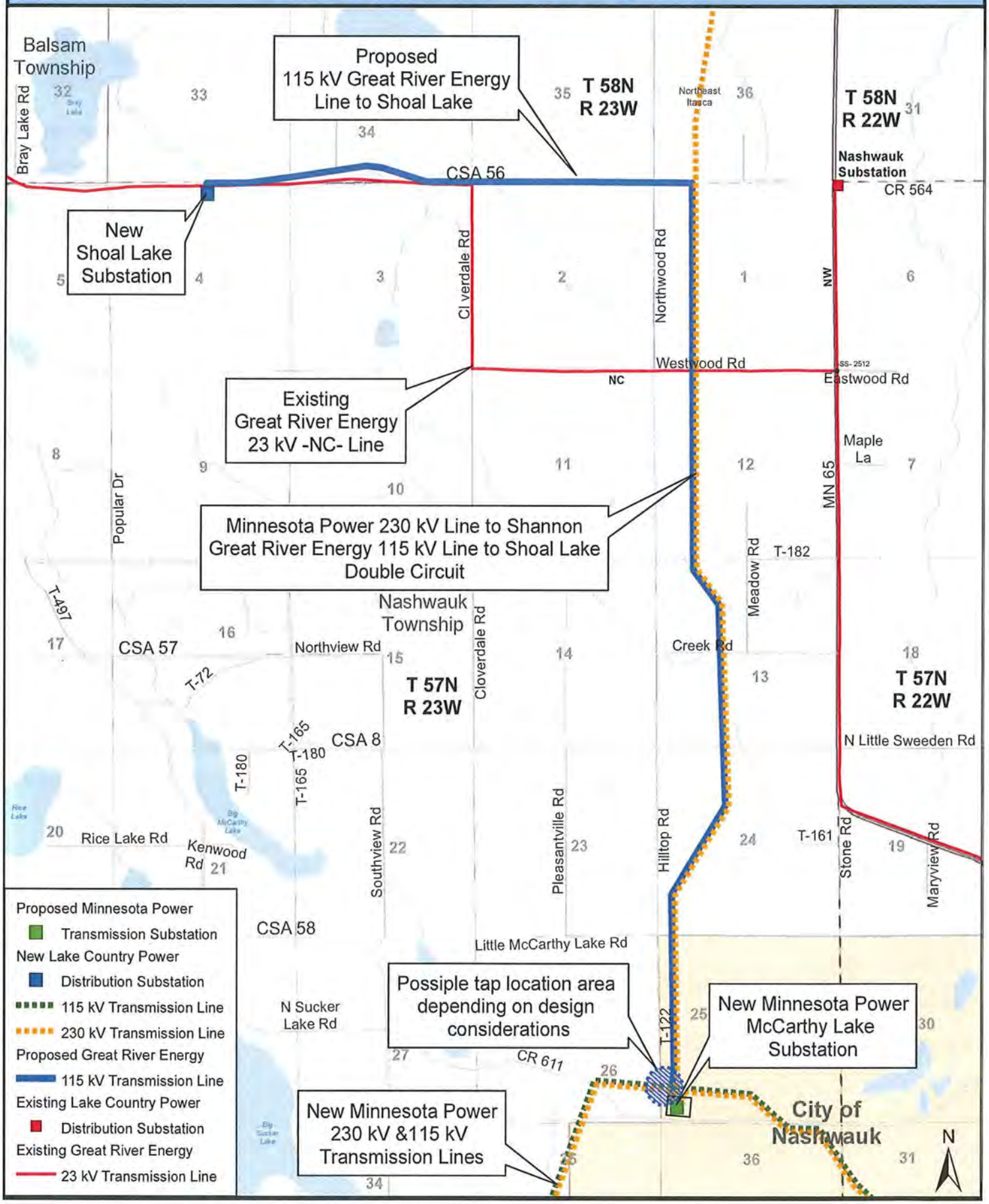
Proposed project