



Public Utilities Commission
121 7th Place East, Suite 350
St. Paul MN 55101

December 17, 2015

RE: PUC Docket Number E-002/M-12-1278

To whom it may concern:

In April 2013, the City of Red Wing applied to the Xcel Energy Renewable Development Fund for the development of a Refuse Derived Fuel (RDF) production facility to be located within the Red Wing Integrated Solid Waste Management Campus. This new RDF production facility is part of an overarching strategic plan to repurpose the City's municipal incinerator operations, which was decommissioned in mid-2013 due to aging infrastructure and inefficient use, yet continue to utilize renewable energy strategies by providing fuel for combustion at the Xcel Energy Generating Plant.

The City has made substantial progress in moving forward with this five-year strategic initiative which began implementation in 2013. The first success has been the City has already successfully negotiated with Xcel Energy for the provision of 20,000 tons of Refuse Derived Fuel (RDF) combustion capacity. This agreement ensures the long term availability of disposal capacity for the City and provides a secondary source of fuel for Xcel in the event of their primary supplier being down for unexpected outages reducing downtime due to lack of fuel which occasionally occurs. Secondly, the City has continued its progress by moving ahead with necessary facility improvements to dismantle existing infrastructure of the City's Solid Waste Incinerator site which includes the solid waste boiler equipment and all pertinent equipment related to these operations, i.e., air pollution control equipment, boiler tubes and ash removal systems. A contractor is finalizing specifications for clean-up of site hazardous materials and preparing the City to bid out decontamination implementation. Furthermore, the City has approved \$2 million of funding from the City's capital improvement plan to aid in the completion of the upgrades to the City's operations. Lastly, the Goodhue County Board of Commissioners recently passed a resolution to begin the process of designating waste generated within the County to be deposited at the Red Wing Solid Waste Management Campus.

The City of Red Wing is committed to its goals of using renewable energy through resource recovery and implementing environmental stewardship policies while maintaining the majority of its core commitments to the region. Benefits to decontaminating this site and repurposing it with an upgraded waste management RFD system include the following.

- **Increase the Volume of Extracted Recyclable Materials.** By upgrading facilities to include dual-stage, slow-speed, shear shredders it will result in an increased amount of recyclable materials

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being recovered from the waste stream. Currently, the City's processing equipment does not adequately open bags optimizing the identification and recovery of recyclable commodities. The primary shredder proposed in this project will open the bags at the start of the process and help even the flow of materials on the sorting conveyors. This will allow the speed of the sorting conveyors to increase, helping to further spread the solid wastes out and make identification and sorting of the recyclables far easier.

- **Reduce Volume of Materials in Landfills.** By turning solid waste into a cleaner combustible fuel source, the volume of materials going into landfills will be reduced. Furthermore, increasing the amount of identified recyclable materials will lower landfill volumes.
- **Reduction in the Generation of Greenhouse Gases and Release of Environmental Toxins.** The proposed new system would increase the removal of combustible fuel contaminants such as metals and electronic wastes. By removing these materials out of the waste to be burned, it reduces toxins from being released into the air. Furthermore, burning waste as fuel produces less greenhouse gas emissions than allowing materials to decompose in landfills. Because there will be decreased landfilling, there will also be a corresponding reduced potential for groundwater contamination.
- **Reduce Operational Costs to Tax Payers.** By increasing income generated through recycling materials and lowering operational costs, the burden on local tax payers will be reduced. The City projects that an additional 250 to 565 tons of recyclables will be recovered with the upfront primary shredder opening bags and making recyclables more presentable. This is projected to provide an additional \$65,000 to \$130,000 per year of recycling revenue to the City. Furthermore, by upgrading the quality RDF supplied to Xcel, they City will save \$2 per ton during the contract term. The net result would be a \$40,000 annual savings to the City for the disposal of waste product. Combined, the net return to the City could be \$100K to \$170K a year. Over a 10-year period, that could equate to over \$1 million of savings for City of Red Wing residents.
- **Lower Operational Costs for Xcel Energy.** Xcel historically receives approximately 180,000 tons of RDF from the Newport facility, but has capacity to burn approximately 200,000 tons. The goal of the Red Wing facility is to provide the 20,000 ton capacity gap Xcel is experiencing. This would improve the economies of scale for Xcel and reduce downtime due to lack of fuel which occasionally occurs. This efficiency improvement will increase cost effectiveness for Xcel Energy, lowering operational costs for the company.
- **Increase Volume Capacity of Red Wing Waste Campus.** Historically, landfill prices have been cheaper than solid waste processing, even with energy recovery. Despite the fact the creation of new Minnesota landfill sites is a long and protracted process, landfill expansions have continued at existing facilities contributing to a barrier to additional energy recovery facilities. The City's project has the potential to increase market penetration for this RDF technology, making it applicable to smaller population-based communities. This project is important to making the RDF type biomass technology competitive with sanitary landfills, thereby expanding the potential for use of this technology. Furthermore, the RDF produced by the City's upgraded system could be densified into fuel pellets and co-combusted with other solid fuel handling systems such as coal or wood, thus reducing the depletion of natural resources.

In summary, the City of Red Wing continues to work towards the development of a viable renewable energy project that will be fully able to implement the RFD project as proposed in the Xcel Energy Renewable Development Fund grant application.

Sincerely,

Sincerely,

A handwritten signature in black ink that reads "Rick Moskwa". The signature is written in a cursive style with a large, prominent "R" at the beginning.

Rick Moskwa

Public Works Director

City of Red Wing, MN

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