

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES**

Minnesota Department of Commerce,
Division of Energy Resources
Combined Heat and Power Stakeholder Process

**MINNESOTA POWER'S
INITIAL COMMENTS**

I. Introduction

On September 11, 2014 and September 24, 2014, the Department of Commerce - Division of Energy Resources (“Department”) held meetings to provide information and facilitate discussion on combined heat and power (“CHP”) issues involving Minnesota’s regulatory framework, technical/economic potential, and education/training needs. At these meetings, a description of policy options to increase the implementation of CHP projects was presented by FVB Energy Inc. (“FVB Energy”). The Department requested that interested parties submit initial comments on the policy options presented. Minnesota Power (“the Company”) attended these meetings and offers these comments in response to that request.

II. Minnesota Power Experience with CHP

Minnesota Power has extensive experience working with its customers to provide CHP opportunities and industrial energy efficiency measures which are both affordable and reliable for their business needs. The Company has owned and operated CHP facilities in its Hibbard Renewable Energy Center and Rapids Energy Center for many years, providing process steam (heat) to key paper customers as well as industrial distributed electric generation (power) to serve its larger customer requirements.

While Minnesota Power continues to assess opportunities to provide CHP solutions for its customers, many potential projects have not been implemented, due to the risk of stranded assets if the host customers were to go out of business or experience a significant reduction in operational demand, and poor cost-to-benefit ratios for the projects.

Additionally, the current regulatory framework to evaluate CHP projects challenges the feasibility of cost recovery for utility-owned CHP projects. For example, in December 2012,

Minnesota Power requested the Minnesota Public Utilities Commission (“Commission”) to approve transferring the assets from the Company’s Rapids Energy Center CHP plant from non-regulated operations into regulated operations and to approve expenditures for an optimization project to increase biomass generation at the site.¹ This request was denied, primarily because the Commission agreed with the Department, which argued that the cost of the Company’s power from regulated operations was marginally higher with the CHP plant than without the plant, even though the cost difference was notably small. Consequently, this low-cost facility remains as part of Minnesota Power’s non-regulated business and the planned CHP expansions the Company had been considering have been placed on hold. In order for future Company-owned CHP projects to be successful, the regulatory framework for evaluating these projects will need to give more consideration to factors besides cost.

III. Comments

Minnesota Power agrees with a policy change to give preference to CHP projects, but does not support mandating utilities to add CHP projects. The Company believes that any project must be cost-effective and in the best interests of all customers. Mandating projects which are not cost effective, located on high-risk sites, or are not needed, is not in the best interests of customers. CHP projects vary considerably and should be evaluated on a site-by-site basis. Additionally, projects require the consent of a host customer. Customers cannot be forced to do CHP projects they do not want or that are not in their financial interests.

For these reasons, Minnesota Power does not support policy options which expand Minnesota’s Renewable Portfolio Standard or which add a new Alternative Portfolio Standard.

The Company agrees with FVB Energy’s conclusion that the most effective way to increase CHP implementation is through the lower cost of capital and shared project risk that comes with utility ownership, but believes some barriers need to be addressed, including mechanisms to address ratepayer risk of stranded assets and the introduction of potentially higher priced electricity for all customers.

¹ Docket No. E015/M-12-1349.

Separate Tier in CIP

While the Company supports policies which promote utility ownership of CHP projects, there are several concerns with FVB Energy's proposed policy options to add a separate new tier in the utilities' Conservation Improvement Programs ("CIP"). There are fundamental differences between promoting energy conservation – the current goal of CIP – and encouraging generation efficiency. A basic premise of conservation is that costly utility investment in generation and transmission infrastructure can be deferred – a principle that saves money for all customers. Promoting CHP projects will add generation at a higher cost than existing generation and this cost will be paid for by all customers.

Projects within existing CIP programs cannot be legitimately compared with generation CHP projects, since the cost savings ratios are fundamentally different. Reducing energy usage is always more cost-effective than adding efficiencies to energy production, as it represents 100% efficiency – a measure that CHP projects do not reach. Another difference between CIP programs and a CHP program is that savings benefits from CIP projects utilize a one-year savings measurement, while the savings calculations for CHP projects are often measured over many years.

Additionally, the most economic CHP projects are likely very large projects which could dwarf existing CIP budgets. Adding a separate tier for CHP within existing CIP programs would require considerable upfront costs to administer the program and evaluate projects, even if no projects are ultimately accepted. And even when projects are accepted, the timeline to completion is considerably longer than traditional CIP projects, further compounding the impact to CIP budgets. It is unclear how the proposed option to add a separate tier for CHP within existing CIP programs would offer an incentive for utility ownership of CHP projects to take advantage of the societal benefits stated in FVB Energy's proposal.

If a new tier were to be added to existing CIP programs to promote CHP projects, Minnesota Power recommends creating a new "generation improvement program" to allow for separate criteria to evaluate and compare generation-based projects. The criteria should include an economic evaluation, a stranded asset risk assessment, a benefit analysis, and a customer agreement. These criteria would need to be established to assure that only sensible CHP projects are developed. The benefits analysis tool to evaluate societal, utility and non-participant impact

would need to be developed specifically for CHP projects, since the existing CIP benefit analysis tool is useful for evaluating conservation projects rather than generation projects.

Resource Planning

Another recommendation proposed at the September 2014 CHP stakeholder meetings is to use the integrated resource planning (“IRP”) process to provide consideration of potential benefits of CHP opportunities in the utility service area in comparison with other resources. While the IRP process is instrumental in establishing the need for additional resources to meet projected demand, it is not the appropriate place to evaluate individual CHP projects, since the economic, risk, and benefit analysis of CHP projects is very site-specific. The IRP planning horizon is 15 years and would require highly generalized assumptions for generic CHP projects many years in the future. Rather, Minnesota Power recommends continuing to use the IRP to gauge when capacity and energy projects are most needed in the service territory and then conducting site-specific analysis to identify and evaluate potential CHP projects that could meet that need.

Renewable CHP projects are currently eligible for current cost recovery by utilities under Minn. Stat. § 216B.1645. Minnesota Power supports regulatory policies that give preference to renewable CHP projects compared to other projects during the approval process for cost recovery under Minn. Stat. § 216B.1645. Minnesota Power also supports expanding cost recovery options for CHP projects which currently do not qualify under Minn. Stat. § 216B.1645, as these projects provide carbon-free efficiency improvements.

IV. Conclusion

Minnesota Power agrees with a policy change to give preference to CHP projects, but does not support mandating utilities to add CHP projects. The Company has extensive experience working with its customers to provide CHP opportunities and continues to assess opportunities to provide CHP solutions as part of its overall planning process. CHP projects have encountered three key barriers that have discouraged implementation: the risk of stranded investment, poor economics, and regulatory hurdles. Policies which address these hurdles will advance the development of CHP projects. The Company appreciates the opportunity to participate in these discussions and plans to continue to be an engaged and willing participant on this topic.

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Respectfully Submitted,



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