



Minnesota Department of Commerce  
Energy Resources Division

To Whom It May Concern:

Vergent Power Solutions, Inc. of Minneapolis, MN is a newly-formed energy company and the exclusive distributor for Capstone Turbine Corporation. Our company provides microturbine systems to customers in an international territory that includes the Upper Midwest, New England and Eastern Canada regions. We perform applications engineering, design support and controls programming to ensure that microturbine CHP projects are as efficient and effective as possible. We also provide long-term service to keep our microturbine fleet operating for years in the future.

We founded Vergent Power in Minnesota for many business reasons, among them our belief that the state is a progressive leader in energy policy. Minnesota does not have the best "spark spread" for CHP customers, nor is it the largest economic center in our territory. However, we feel that the recent work by your Department and others is leading the state to a more supportive environment for CHP and distributed generation. Over time, we feel that Minnesota will lead the region in CHP deployment through its execution of fair and commonsense approaches that respect technology providers, businesses, utilities, and ratepayers, while putting the state on a path to a sustainable energy future.

The Capstone MicroTurbine is an advanced gas turbine power generation system that is manufactured in the United States. Ranging in size from thirty kilowatts to one megawatt, microturbines can run on a variety of fuels while doing so cleanly with cutting-edge combustion technology. The product contains many innovations, chief among them is the use of air bearing technology. Air bearings allow the turbo generator assembly to rotate at speeds of up to 96,000 rpm while using no oil, lubricants or coolants. The system has only one moving part. Customers in a variety of industries utilize microturbines for their reliability, durability, ease of maintenance and clean emissions. The Capstone MicroTurbine has only one-tenth the particulate NOx emissions of the U.S. power grid on an output basis. In CHP mode, microturbines can deliver efficiencies of over eighty percent. Since the inverter-based power electronics are UL 1741 and 2200 certified, microturbines can be easily and safely interconnected to utility networks.

We wish to provide the following recommendations to the Department as you conduct the CHP stakeholder meetings. Our comments are not meant to be comprehensive; since this comment period comes in the middle of the proceeding, we hope to provide high-level guidance to complement the work done thus far by the stakeholders. We also support comments from the Midwest Cogeneration Association (MCA), of which we are a proud member of the Advisory Board.

*1. Provide Adequate Focus and Support to Small CHP Projects (Below 5MW)*

The projects we specialize in are always less than 5MW and typically less than 2MW. This size range is well-suited for commercial buildings such as apartments, hotels, hospitals, office buildings and data centers, as well as light industrial facilities such as food and beverage manufacturing, plastics and packaging, etc. As the Department's studies have shown, the number of customers in this size range of CHP technical potential is vast. We recommend that the Department make efforts to provide support for small CHP projects as well as for large CHP projects. In so doing, the Department will ensure that positive impacts flow through to as many businesses and institutions in the state as possible.

*2. Address Barriers to Small CHP Projects*

Financial barriers can affect small CHP projects more than larger projects since ROI is the biggest motivation for customers undertaking a small CHP project. Standby rates and other departing load charges can have a significantly prohibitive impact on small projects. Most users in this size range are not in the energy business and therefore any capital budget not directed towards their core business is rare. We recommend that standby charges be waived for projects under 500kW and reduced for projects under 2MW.

*3. Work Collaboratively with Industry Stakeholders*

The Department has done a good job of working collaboratively with a wide range of stakeholders during the process. We hope that this inclusive approach will continue and we declare our support for groups like the Midwest Cogen Association, which is a multi-member industry group comprising technology, engineering, and project experts from the Minnesota CHP industry, and the DOE-funded Midwest Technical Assistance Program out of University of Illinois-Chicago. MCA has also been working with the Great Plains Institute to amplify our message during the process.

*4. Develop Win-Win Strategies with Utilities*

CHP should benefit businesses, utilities and ratepayers, as well as have larger societal benefits if done correctly. Both gas and electric utilities in the state should have motivation to promote deployment of CHP such that it provides them credits towards energy and/or efficiency obligations. In our experience, gas utilities are typically the best placed to administer incentive programs for CHP. However, electric utilities must be compensated or otherwise rewarded for aiding in the expansion of CHP. We urge an open dialogue with utility and industry voices at the table to find the fairest and most commonsense approaches.

*5. Look to Other State's Success Stories, and Their Failures*

Many other states have implemented pro-CHP policies that the Department can look to for guidance. Massachusetts, California, New Jersey and Illinois are examples that we are familiar with. Other national groups such as the EPA's CHP Partnership have resources directed at states to help them develop time-tested policies that support CHP. However, no program is perfect and the Department should be careful not to duplicate the past errors of other states.

We thank the Department for soliciting these comments and we hope that there will be another comment opportunity following the conclusion of the stakeholder meetings.

Sincerely,

A handwritten signature in black ink, appearing to read 'Justin Rathke', with a stylized, elongated flourish at the end.

Justin Rathke  
Founder and President  
Vergent Power Solutions, Inc.