Division of Energy Resources
Policy Brief -- August 2014

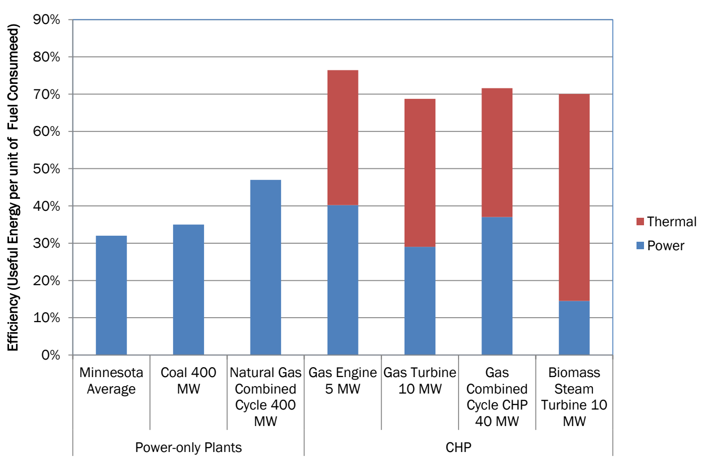
Minnesota Combined Heat and Power Policies and Potential

This Policy Brief summarizes a study undertaken for the Department of Commerce of potential changes in Minnesota policies and programs to increase the implementation of combined heat and power. [1]

Why CHP is Important

Of the total 1,706 trillion Btu (TBtu) of energy used in Minnesota in 2012, 350 TBtu was lost in electricity generation, transmission and distribution, resulting in an average power sector efficiency under 33 percent. Power generation waste heat in Minnesota is nearly equal to the total requirement for heat energy in buildings and industry.

Combined heat and power (CHP) systems reduce fossil fuel use and greenhouse gas (GHG) emissions by recovering heat that is usually rejected in power plants for useful purposes (heating buildings, domestic hot water, industrial process heat, or conversion to cooling energy for air conditioning or industrial cooling energy). The resulting CHP energy efficiency is significantly higher than conventional power plants, as illustrated in the figure below.



CHP also has the potential to provide a range of benefits relative to grid resiliency, reduce power line losses and peak power demand management.

CHP can help achieve Minnesota policy goals for energy efficiency, GHG reduction and renewable energy. Federal environmental regulations, including GHG standards for existing and new power plants, and potential regional haze regulatory action, are likely to enhance the economics of CHP by increasing the economic value of GHG and air pollution reductions.

Barriers

CHP faces a range of economic, regulatory and institutional challenges:

- Relatively low electricity prices in Minnesota make CHP economic viability relatively challenging in comparison with other states.
- Most potential industrial or commercial entities require a very short payback on efficiency investments including CHP.
- Most industrial and commercial entities do not have the experience, skills and time for the difficult task of developing a CHP project.
- Decades of energy supply and price volatility inhibits CHP investment.
- There is no market value established for the GHG, power grid resiliency or other benefits of CHP.
- Historically, utilities have discouraged projects through interconnection requirements, standby rates and other means.

Current CHP in Minnesota

There are currently 961.5 MegaWatts (MW) of CHP capacity located at 52 sites in Minnesota. Of this total, 83 percent resides in large systems with capacities greater than 20 MW.

[1] "Minnesota Combined Heat and Power Polices and Potential," FVB Energy Inc. July 2014. Contract 67922.

Base Case CHP Potential

About 210 MW of additional CHP is projected to be implemented by 2030 without new policies (Base Case), an increase of about 20 percent.

CHP Potential with New Policies

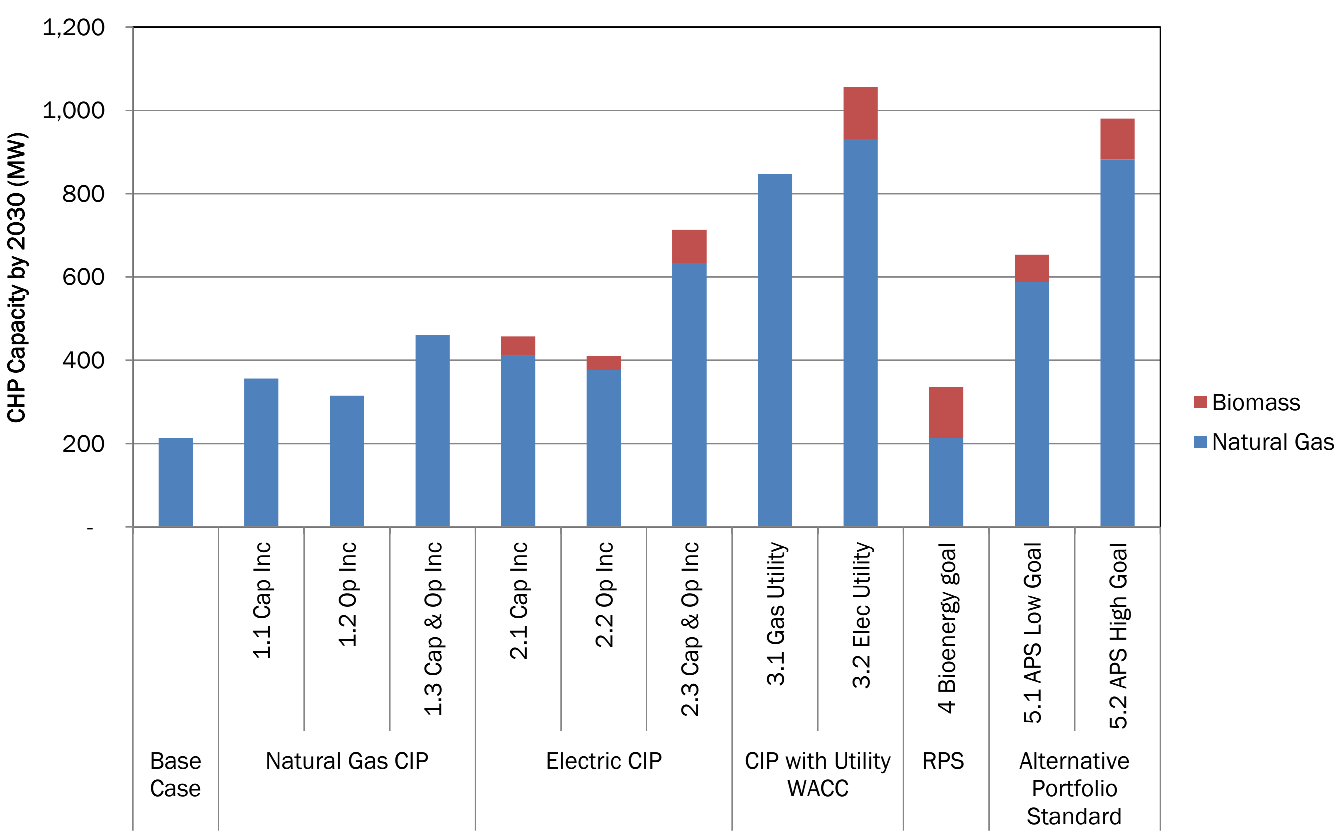
Description of Policy Options

The policy options analyzed in the study are described below.

- **Policy Option group 1.** A separate new CHP tier is established in natural gas utility Conservation Improvement Programs (CIP), with capital incentives (Option 1.1), operating incentives (Option 1.2), or a combination of both capital and operating incentives (Option 1.3) provided to customers or third parties.
- **Policy Option group 2.** A separate new CHP tier is established in electric utility CIP, with capital incentives (Option 2.1), operating incentives (Option 2.2), or a combination of both capital and operating incentives (Option 2.3) provided to customers or third parties.
- **Policy Option group 3.** A separate new CHP tier is established in either gas utility (Option 3.1) or electric utility (Option 3.2) CIP. In addition to providing operating incentives for customer- or third party-owned CHP, utilities are encouraged to use their low weighted average cost of capital (WACC) to fund CHP systems and would receive a CIP credit equivalent to the operating incentive that would be provided to others.
- **Policy Option 4.** A specific carve-out is made for bioenergy CHP in either the existing Renewable Portfolio Standard (RPS) or an expanded RPS.
- **Policy Option group 5.** These options address the potential to create a new Alternative Portfolio Standard (APS), which would require electric utilities to obtain a given percentage of sales from CHP (regardless of fuel) by a given year. (Options 5.1 and 5.2 are low and high goals, respectively.

Impacts of Policy Options on CHP Growth

Projected 2030 CHP market penetration under the Base Case (Business as Usual) and with the Policy Options is summarized in the figure below. The following discussion summarizes the results of market penetration estimates and the cost-effectiveness analysis of the Policy Options using two cost-benefit tests: participant cost test (PCT) and the societal cost test (SCT).



Conservation Improvement Program (CIP)
In Policy Options 1.1, 1.2, 2.1 and 2.2, CIP incentives for customer investment in CHP, at levels approximately consistent with recent levels of CIP expenditures per unit of electricity or natural gas saved, are estimated to result in approximately 100 to 240 MW of additional CHP beyond the Base Case. However, most CHP installations do not meet both the PCT and SCT.

Policy Options 1.3 and 2.3, which provide more substantial CIP incentives (combining capital and operating incentives) for customer investment in CHP, are estimated to result in approximately 250 to 500 MW of additional CHP beyond the Base Case. However, while these policy options improve PCT results, most CHP installations not meet both the PCT and the SCT.

In Policy Option group 3, deploying the relatively low Weighted Average Cost of Capital (WACC) of utilities to build CHP significantly enhances CHP economics. Utility investment in CHP is estimated to result in approximately 630 to 840 MW of additional CHP beyond the Base Case, with positive results for both cost-benefit tests for a wide range of CHP installations.

Renewable Portfolio Standard
With Policy Option 4, establishing a specific "carve-out" for bioenergy CHP in the RPS is estimated to result in about 125 MW of new biomass CHP by 2030.

Alternative Portfolio Standard
In Policy Option group 5, an Alternative Portfolio Standard is estimated to result in approximately 440 to 770 MW of additional CHP beyond the Base Case (for Low and High APS targets). At the high end of this range, CHP would more than double by 2030.

Although the APS was not directly analyzed for the Cost-Benefit tests, it was indirectly analyzed and is projected to result in positive results for both Cost-Benefit tests for wide range of CHP installations.

Evaluation of Policy Options

Conservation Improvement Program (CIP)

As a mechanism for advancing CHP, the CIP has a significant advantage because it is an established program for reductions in electricity and natural gas consumption that is familiar to utilities, stakeholders and state agencies. Further, CIP provides opportunities for incentives ("carrots") for utility adoption of CHP, in contrast to the APS, which relies solely on a "stick" approach. However, there are a range of issues surrounding use of CIP as a mechanism to advance CHP.

There are disparities in CHP opportunities between utilities, particularly limitations in the service territories of municipal utilities and cooperatives. A system of tradable credits would provide a way to address this issue and promote economic efficiency (i.e., result in the lowest costs to society by promoting implementation of CHP at the most cost-effective sites regardless of location).

One concern regarding the CIP is the high level of opt-out and the fact that the opt-outs tend to be the larger energy users who are generally the best candidates for CHP. To the extent that CHP is implemented within CIP primarily through utility ratebase investments, this issue is largely mitigated. However, at least as envisioned in the policy analysis, a CIP credit ($/MWh) would also flow to the CHP project even with utility ownership in order to provide an economic advantage to CHP in competing for dispatch of utility resources.

Legislation to establish a CHP tier in CIP would have to resolve the current lack of clarity regarding the potential role of CHP in CIP. Further, the legislation would require resolution of issues of interaction between electric utility CIP and gas utility CIP. For example, if natural gas utilities could include CHP in their CIP, there would be a shift in revenue from the electric utility to the gas utility. This would engender resistance from electric utilities out of concern for impacts on rates. On the other hand, including CHP in both gas and electric utility CIP may increase the interest of electric utilities in CHP in order to retain revenues.

Decoupling of both gas and electric utility revenues from sales would in concept address concerns related to potential shifts in revenue from one utility to another. (Decoupling is a complex issue that extends far beyond CHP, and was not part of the scope of this study.)

An argument in favor of focusing responsibility for CHP implementation on electric utilities is that it can better facilitate timely and positive resolution of barriers relating to interconnection and standby rates. Further, setting goals for CHP in both electric and gas utility CIP would result in the potential for electric and gas utilities to be competing for the same pool of prospective CHP projects.

Renewable Portfolio Standard

Establishing a specific "carve-out" for bioenergy CHP in the RPS (Policy Option 4) is projected to provide relatively little additional CHP and ignores the largest CHP potential (natural gas CHP).

Alternative Portfolio Standard

Minnesota currently has no Alternative Portfolio Standard (APS), so new legislation would be required to create a new program and related implementation mechanisms. Creation of a new program will likely face greater political challenges in comparison to expanding an existing program.

On the other hand, because the APS would be a new program it may be able to avoid some of the complexities discussed above relative to adapting the CIP to include CHP. An APS can be structured from the beginning as an enforceable standard with clear cost penalties for non-compliance.

Utility Investment in CHP

In Policy Option groups 3 and 4, deploying the relatively low Weighted Average Cost of Capital (WACC) of utilities to build CHP can significantly enhance CHP economics.

Utility investment in CHP at customer sites could result in ratepayer risk in the event that the thermal host goes out of business. Risk profiles of thermal hosts vary dramatically, with industrial plants competing internationally at the high end of the risk continuum, and institutional customers at the low end.

Risks related to CHP should be considered in the context of existing risks to ratepayers, such as cost overruns for refurbishment of conventional power plants, and risks associated with environmental rules.

Potential ratepayer risks associated with utility investment in CHP could be addressed through a range of mechanisms, including a return on equity risk premium, a state-funded loss reserve or other mechanisms.

Integrated Resource Planning

Integrated Resource Planning (IRP) can be a useful element in Minnesota CHP policy because it provides a context for: 1) consideration of potential benefits of CHP that currently do not have a market value (GHG emission reductions, grid resiliency, reduced transmission/distribution losses, etc.); and 2) analysis of CHP opportunities in the utility service area in comparison with other resources.

Recommendations

Near-term Steps

During the balance of 2014, the following steps are recommended:

1. Initiate a robust stakeholder discussion of this report including feedback on policy options for increasing implementation of CHP. (Note: planning for this is already well underway by the Department of Commerce.)
2. Initiate an interagency working group to integrate potential CHP policy with Minnesota's plan to comply with the Clean Power Plan.
3. Develop a draft "Minnesota CHP Policy Act" for consideration by the legislature in 2015.

Either the CIP or an APS can be an effective centerpiece in Minnesota policies to significantly increase CHP, with the focus on facilitating use of the low WACC of utilities to finance CHP projects. On balance, the CIP appears to be a stronger vehicle for increasing CHP if the legislation effectively addresses the disadvantages outlined above. A priority should be placed on successfully adapting the CIP to include CHP, with the APS considered as a back-up approach.

Regardless of whether the CIP or an APS is the primary CHP program, a system of tradable credits will be important to promote economic efficiency (i.e., result in the lowest costs to society by promoting implementation of CHP at the most cost-effective sites regardless of location).

An achievable and readily understood goal for the State of Minnesota is doubling CHP capacity by 2030.

Key provisions for the "Minnesota CHP Policy Act" are recommended below. In addition to the CIP as the centerpiece, additional recommendations are provided relative to integrated resource planning and standby rates.

Minnesota CHP Policy Act

ARTICLE 1. FINDINGS AND GOAL

Subd. 1. FINDINGS. The legislature finds that combined heat and power (CHP) systems should be encouraged because such systems:

a) Reduce fossil fuel use by recovering heat that is usually wasted as rejected heat in power generation;
b) Reduce emissions of air pollutants and greenhouse gases;
c) Increase energy security and sustainability by reducing dependence on fossil fuels; and
d) Enhance grid resiliency, reduce power line losses and strengthen peak power demand management.

Subd. 2. GOAL. The State of Minnesota establishes a goal of doubling CHP capacity from the current 962 MegaWatts (MW) by the year 2030.

ARTICLE 2. CONSERVATION IMPROVEMENT PROGRAM.

Subd. 1. ENERGY CONSERVATION IMPROVEMENT. Minnesota Statutes Section 216B.241 Subd. 1(e) is modified by adding:

> *Energy conservation improvement also includes combined heat and power as defined in Subd. 11.*

Subd. 2. COMBINED HEAT AND POWER REQUIREMENTS. Minnesota Statutes Section 216B.241 Subd. 1c. is modified by adding the following new paragraphs (c) and (d) and renumbering subsequent paragraphs:

> *(c) Each individual investor owned electric utility shall have an annual CHP energy savings requirement equivalent to 0.45 percent of gross annual retail energy sales unless modified by the commissioner under paragraph (e). This CHP requirement shall be shall be tracked in a category that is separate and distinct from other energy savings goals in this section. The CHP requirements must be calculated based on the most recent three-year weather-normalized average. A utility may elect to carry forward energy savings in excess of 0.45 percent for a year to the succeeding three calendar years. A particular energy savings can be used only for one year's requirement.*
>
> *(d) Each individual municipal electric utility, electric cooperative or association shall have an annual CHP energy savings requirement equivalent to 0.18 percent of gross annual retail energy sales unless modified by the commissioner under paragraph (e). These CHP requirements shall be shall be tracked in a category that is separate and distinct from other energy savings goals in this section. The CHP requirements must be calculated based on the most recent three-year weather-normalized average. A utility may elect to carry forward energy savings in excess of 0.18 percent for a year to the succeeding three calendar years. A particular energy savings can be used only for one year's requirement.*

Subd. 3. OWNERSHIP OF COMBINED HEAT AND POWER. Minnesota Statutes 216B.241 Subd. 3 is modified with the *italicized* insertion as follows:

> Subd. 3.Ownership of energy conservation improvement.
>
> An energy conservation improvement made to or installed in a building in accordance with this section, except *combined heat and power systems or other* systems owned by the utility and designed to turn off, limit, or vary the delivery of energy, are the exclusive property of the owner of the building except to the extent that the improvement is subjected to a security interest in favor of the utility in case of a loan to the building owner. The utility has no liability for loss, damage or injury caused directly or indirectly by an energy conservation improvement except for

negligence by the utility in purchase, installation, or modification of the product.

Subd. 4. DEFINITIONS. Minnesota Statutes 216B.241 is modified by adding the following new subdivision:

Subd. 11.Combined heat and power.

(a) Eligibility. CHP Credits from combined heat and power are eligible to be counted towards an electric utility's CHP energy savings requirements, as established in Subd. 1c. (c) and Subd. 1c. (d), subject to department approval.

(b) Definitions.

1. *Combined Heat and Power (CHP). A process which uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including heating and cooling applications).*

2. *CHP Credits. CHP Credits are defined as follows for each category of CHP opportunity:*

   a) *CHP Credit for New Non-Renewable CHP Plant. A Qualifying CHP plant using a non-renewable fuel, which produced neither electrical nor Useful Thermal Energy before January 1, 2016, shall generate CHP Credits, measured in MegaWatt-hours, equal to the values shown in Table 1 based on the total energy efficiency (thermal and electric) measured on a Higher Heating Value (HHV) basis.*

   b) *CHP Credit for New Renewable CHP Plant. A Qualifying CHP plant using renewable fuel, which produced neither electrical nor Useful Thermal Energy before January 1, 2017, shall generate CHP Credits, measured in MegaWatt-hours, equal to the values shown in Table 2 based on the total energy efficiency (thermal and electric) measured on a Higher Heating Value (HHV) basis.*

Non-Renewable Fuels		
Tier	Efficiency (HHV)	% of Power Output Credited
	<60%	0%
Tier 1	>60<70%	80%
Tier 2	>70<80%	90%
Tier 3	>80%	100%

Table 1. Recommended Efficiency Standards and Crediting Tiers for Non-Renewable CHP

Renewable Fuels		
Tier	Efficiency (HHV)	% of Power Output Credited
	<50%	0%
Tier R1	>50<60%	80%
Tier R2	>60<70%	90%
Tier R3	>70%	100%

Table 2. Recommended Efficiency Standards and Crediting Tiers for Renewable CHP

   c) *CHP Credit for CHP Retrofit of Existing Power Plant. A power plant which produced electrical energy before January 1, 2016 and added the production of incremental Useful Thermal Energy after January 1, 2016, shall generate CHP Credits equal to the result, if positive, of the following calculation:*

   CHP Credit = (IEE / 40%) + (IUTE / 80%) – IF

IEE = Incremental Electrical Energy

IUTE = Incremental Useful Thermal Energy

IF = Incremental Fuel

d) *CHP Credit CHP Retrofit of Existing Heating or Process Energy Plant. A heating plant or industrial process plant which produced Useful Thermal Energy before January 1, 2016 and added production of Incremental Electrical Energy after January 1, 2016 using Process Waste Heat shall be generate CHP Credits equal to the result, if positive, of the following calculation:*

CHP Credit = (IEE / 40%) + (IUTE / 80%) – IF

IEE = Incremental Electrical Energy

IUTE = Incremental Useful Thermal Energy

IF = Incremental Fuel

3. *CHP Plant. Facilities and equipment used for combined heat and power.*

4. *Incremental Electrical Energy. Electrical energy generated by a Qualifying CHP Plant that is either greater than (expressed as a positive amount) or less than (expressed as a negative amount) the electrical energy generated by the CHP Plant prior to the addition of new electric generation nameplate capacity, Useful Thermal Energy, or Incremental Useful Thermal Energy.*

5. *Incremental Fuel. The amount of additional fuel used by a Qualifying CHP Plant which is attributable to the production of Incremental Useful Thermal Energy or Incremental Electrical Energy.*

6. *Incremental Useful Thermal Energy. Useful Thermal Energy produced by a Qualifying CHP Plant that is distinct in its final distribution, beneficial measure, and metering from Useful Thermal Energy previously produced by the CHP Plant, but only to the extent that the Incremental Useful Thermal Energy does not reduce the Useful Thermal Energy previously produced.*

7. *Non Renewable CHP. A Qualifying CHP Plant for which more than 10 percent of the annual fuel input is composed of natural gas, coal, oil, propane, other fossil fuels, or nuclear energy.*

8. *Process Waste Heat. Heat contained in gases or liquids exhausted from a boiler plant, industrial process or municipal process (such as sewage sludge incineration) that is currently and/or conventionally not recovered for useful purposes.*

9. *Qualifying CHP Plant. Any CHP Retrofit of Existing Power Plant, any CHP Plant CHP Retrofit of Existing Heating or Process Energy Plant, or any new CHP Plant which: 1) which has a minimum annual energy efficiency on a higher heating value basis of 60 percent (if using non-renewable fuels) or 50 percent (if using renewable fuels); 2) which produces at least 20 percent of its total useful energy in the form of thermal energy which is not used to produce electrical or mechanical power (or combination thereof), and at least 20 percent of its total useful energy in the form of electrical or mechanical power (or combination thereof).*

10. *Renewable CHP Plant. A Qualifying CHP Plant for which at least 90 percent of the annual fuel input is composed of energy sources other than natural gas, coal, oil, propane, other fossil fuels, or nuclear energy.*

11. *Useful Thermal Energy. Energy 1) in the form of direct heat, steam, hot water, or other thermal form that is used in production and beneficial measures for heating, cooling, humidity control, process use, or other valid thermal end use energy requirements and (2) for which fuel or electricity would otherwise be consumed.*

12. *Utility Customer. A Utility Customer is an entity who purchases retail electricity from the utility.*

(c) *Incentives.*

1. *Incentives for Utility Customer- or Third Party-Owned CHP. Utilities shall provide an operating incentive to customers who finance a CHP plant, or third parties who finance a CHP plant to serve a customer or group of customers.*

2. *Duration of Incentives. Operating incentives shall be provided for a period of fifteen (15) years.*

3. *Level of Incentive. The operating incentive shall be calculated as follows: CIPE = Statewide average total CIP expenditures by electric utilities for non-CHP incentives and programs over the three (3) calendar years prior to the initiation of commercial operation of the CHP plant, inclusive of administrative costs*

   CIPS = Statewide average total first year CIP savings (MWh) by electric utilities for non-CHP incentives and programs over the three (3) calendar years prior to the initiation of commercial operation of the CHP plant

   Level of Incentive = CIPE / (CIPS x 15 years)

4. *Utility-Owned CHP. If the electric utility finances a CHP plant, it may include as a CIP expenditure the amount which would otherwise be provided to a CHP Plant financed by a customer or third party.*

(d) *Alternative Compliance.*

1. *Alternative Compliance Payment. A utility may discharge its obligations, in whole or in part, for any Compliance Year by making an Alternative Compliance Payment (ACP) to the Minnesota Department of Commerce. The ACP Rate, in $ per MWh CHPC, and provisions for modifying the rate, shall be established in rulemaking.*

2. *Use of Funds. The Department of Commerce shall oversee the use of ACP funds so as to further the implementation of district energy systems to facilitate the development and expansion of thermal energy loads for CHP.*

(e) *Tradable Credits. A system of tradable CHP credits (CHPCs) will be established so that a customer, third party or natural gas utility can generate CHP Credits for sale to electric utilities.*

1. *Lifetime. CHPS Credits will have a trading lifetime of 4 years according to the year of generation (e.g., all credits generated during 2017, regardless of the month, expire at the end of 2021).*

2. *Whole Credits. CHPCs must remain "whole" and may not be disaggregated into separate environmental commodities (e.g., carbon emission credits)*

ARTICLE 3. INTEGRATED RESOURCE PLANNING

Subd. 1. Minnesota Statutes 216B.2422 Subd. 4 is modified with the *italicized* insertion as follows:

Subd. 4.Preference for renewable energy facility.

The commission shall not approve a new or refurbished nonrenewable energy facility *which generates only electricity* in an integrated resource plan or a certificate of need, pursuant to section 216B.243, nor shall the commission allow rate recovery pursuant to section 216B.16

for such a nonrenewable energy facility, unless the utility has demonstrated that a renewable energy facility is not in the public interest. The public interest determination must include whether the resource plan helps the utility achieve the greenhouse gas reduction goals under section 216H.02, the renewable energy standard under section 216B.1691, or the solar energy standard under section 216B.1691, subdivision 2f. Electric utilities are required to demonstrate that, before power-only capacity is proposed in Integrated Resource Plans, CHP opportunities within their service territory have been thoroughly assessed to determine the GHG, grid resiliency and other benefits of CHP.

Subd. 2. Minnesota Statutes 216B.2422 is modified by adding the following new Subdivision and renumbering subsequent subdivisions:

Subd. 5. Preference for combined heat and power.

The commission shall not approve a new or refurbished nonrenewable energy facility which generates only electricity in an integrated resource plan or a certificate of need, pursuant to section 216B.243, nor shall the commission allow rate recovery pursuant to section 216B.16 for such a nonrenewable energy facility, unless the utility has demonstrated that: 1) opportunities for new combined heat and power plants within their service territory have been thoroughly assessed to determine the greenhouse gas, grid resiliency and other benefits; 2) the potential for converting existing power plants to combined heat and power, with distribution of recovered energy through district energy systems, has been thoroughly assessed to determine the greenhouse gas, grid resiliency and other benefits; and 3) a combined heat and power facility is not in the public interest, which public interest determination shall include whether the resource plan helps the utility achieve the combined heat and power requirements in Minnesota Statutes 216B.241

ARTICLE 4. STANDBY RATES

Minnesota Statutes 216B.164 is modified by adding the following new subdivision and renumbering subsequent subdivisions:

Subd. 3. STANDBY RATES. Standby rates charged by public utilities must conform to the following principles:

1. *Standby rates should be transparent, concise and easily understandable. Potential CHP customers should be able to accurately predict future standby charges in order to assess their financial impacts on CHP feasibility.*

2. *Standby energy usage fee should reflect both demand and time-of-use cost drivers. Time-of-use energy rates send clear price signals as to the cost for the utility to generate needed energy. This would further incentivize the use of off-peak standby services.*

3. *The Forced Outage Rate should be used in the calculation of a customer's reservation charge. The inclusion of a customer's forced outage rate directly incentivizes standby customers to limit their use of backup service. This further ties the use of standby to the price paid to reserve such service, creating a strong price signal for customers to run most efficiently.*

4. *The standby demand usage fees should only apply during on-peak hours and be charged on a daily basis. This rate design would encourage CHP customers to shift their use of standby service to off-peak periods when the marginal cost to provide service is generally much lower. Furthermore, this design would allow customers to save money by reducing the duration of outages.*

5. *Grace periods exempting demand usage fees should be removed where they exist. Exempting an arbitrary number of hours against demand usage charges sends inaccurate prices signals about the cost to provide this service. Standby demand usage should be priced as-used on a daily and preferably an on-peak basis. This method directly ties the standby customer*

to the costs associated with providing standby service.

Implementation and Rulemaking

Following passage of legislation, the following steps are recommended:

1. Conduct a study to quantify the "Value of CHP" relative to total primary energy efficiency, GHG emissions, power grid resiliency, peak demand management, risk management and other potential values of CHP. Further, the study should assess potential constraints to increased implementation of CHP, such as natural gas pipeline capacity limitations.

2. Establish clear policies regarding inclusion of CHP costs in electric utility rates, including mechanisms for addressing ratepayer risks associated with utility investment in CHP through a return on equity risk premium, a state-funded loss reserve or other mechanism.

3. Initiate a high-level dialog with the Midwest Independent System Operator to create rules that encourage maximum dispatch of CHP units.