BEFORE THE

LOUISIANA PUBLIC SERVICES COMMISSION

LOUISIANA PUBLIC SERVICE COMMISSION EX PARTE	)	
IN RE: RULEMAKING TO STUDY THE POSSIBLE DEVELOPMENT OF FINANCIAL INCENTIVES FOR THE PROMOTION OF ENERGY EFFICIENCY BY JURISDICTIONAL ELECTRIC AND NATURAL GAS UTILITIES	)	**DOCKET R-31106**

COMMENTS OF THE
GULF COAST CLEAN ENERGY APPLICATION CENTER

The Gulf Coast Clean Energy Application Center respectfully offers these comments on the above referenced energy efficiency incentives in Docket No. R-31106. The Gulf Coast Clean Energy Application Center ("GC RAC") facilitates greater deployment of clean energy technologies like combined heat and power ("CHP"), district energy, and waste heat recovery in Louisiana, Texas, and Oklahoma. The GC RAC, which is hosted by the Houston Advanced Research Center, a non-profit scientific organization, provides education and outreach programs, project-specific support services, and policy development initiatives supportive of clean energy.

GC RAC applauds the Louisiana Public Services Commission's ("PSC") efforts in this docket, including providing the opportunity to comment on the value of including CHP as an eligible energy efficient measure. Combined heat and power is the simultaneous production of both electricity and heat from a single fuel source. The technology is a very efficient alternative

to traditional use of separate heat and power to supply buildings. CHP's energy efficiency proposition stems from the capture and use of the heat to offset boiler fuel or electric chiller consumption. Unlike traditional energy efficiency technologies, the technology does not replace an existing product with a higher efficiency version. In addition, the efficiencies resulting from CHP have high capacity value and demonstrate good persistence.

Today, CHP technologies are available and appropriate for a wide range of facilities in the commercial, institutional, and industrial customer classes. Projects can range from as small as 50 kW to 50 MW and larger. Louisiana has an existing installed base of CHP at industrial facilities. These project tend be large and involve both electricity and heat. Smaller projects are less common, but can result in efficiency gains at condominiums, nursing homes, grocery stores, and many other locations. These applications commonly involve electricity, heat and chill water.

With regard to the specific questions provided by the PSC in its second request for comments, the GC RAC provides the following:

1. Process

No comment.

2. Policy Objectives

Any energy efficiency program adopted in Louisiana should hold the reduction of total primary energy used in the state as the ultimate goal. The PSC should evaluate opportunities to develop a broad-based program for all customer classes and that results in savings of both electricity and natural gas.

3. Utility Administration

No comment.

4. Cost Effectiveness Tests

The Total Resource Cost test is useful in evaluating the benefits of combined heat and power projects. In addition, the PSC should examine with stakeholders whether the societal variant of the Total Resource Cost test provides additional value in assessing the cost effectiveness of energy efficiency measures. If the broader impacts of energy efficiency are important to the state, then use of the societal test may be warranted. The societal test can help the PSC evaluate the benefits of:

- greenhouse gas and criteria pollutant reductions,
- power reliability and power quality,
- continuity of emergency management and healthcare centers during power outages,
- reduction in purchases of capacity and energy (peak and other usage periods),
- transmission and distribution deferral,
- reduction in T&D line loading (congestion) leading to improved grid operational efficiency (reduced line losses),
- reduction in use of total resources such as water consumption,
- the effect of Demand Reduction Induced Price Effect (DRIPE) or the use of lower cost generators on the margin, and
- any federal and state tax credits and incentives.

5. Cost Effectiveness Tests

No comments.

6. Cost Effectiveness Tests

Cost effectiveness tests should use the generally accepted lifetime of individual measures, taking into account any established and quantifiable decrease in savings known to occur as measures age.

7. Collaborative Process

No comments.

8. Coordinate with Other State Agencies

No comment.

9. Maximum Achievable Potential Study

A study to determine the Maximum Achievable Technical and Economic Potential of energy efficiency in the state of Louisiana should be undertaken as early as possible. This study should include the technical and economic potential of combined heat and power technologies suitable for all customer classes participating in the program, potentially including industrial, institutional, and commercial sectors. The study should encompass traditional cogeneration projects (heat and electricity), as well as CHP projects where the captured heat is used to offset cooling loads through the use of steam-driven chillers and where heat is converted to additional electricity using steam turbines or organic rankine cycle heat to electricity technology. The study should be done early in the process to facilitate effective program design and to develop reasonable targets and incentives.

10. Cooperative Utility Participation

Because many cooperatives serve rural areas where energy efficiency opportunities are limited, reduced participation among cooperatives may be warranted. However, combined heat

and power projects, many of which may be powered by locally available renewable or opportunity fuels, are feasible in many rural or agricultural settings commonly served by electric cooperatives. The opportunity to advance energy efficiency in rural communities using renewable-fueled CHP should not be overlooked.

11. Filing Process

No comments.

12. Deemed Savings Approach

The Deemed Savings approach is a useful approach and the GC RAC supports the PSC's intention to use it. This approach can help minimize administrative costs and as a result increase funding available for incentives. Common measures where the deemed savings approach is useful include lighting, chillers, and other "mature savings measures." However, the GC RAC thinks it imperative that the PSC ensure the program offers a non-deemed route for technologies, like CHP, that do not easily fit into common deemed savings approach or for customers who may have sophisticated energy management and control systems. The non-deemed savings route will broaden the number of measures supported by the program and help ensure the program is not biased towards any particular technology. In addition, customers that have unusual operating hours or other site-specific requirements will be better able to participate if a more rigorous measurement and verification method is allowed in addition to deemed savings.

13. EM&V

No comments.

14. Opt-Out Provision

No comments.

15. Utility Incentive Mechanisms

The Public Service Commission should develop policies that value resource adequacy independently of whether that goal is achieved by supply-side measures, such as building power plants, or by implementing demand-side measures, such as energy efficiency. Policy should provide equal incentives to utilities, such that utilities may select the most appropriate resource available to achieve resource adequacy on a financially equal basis.

16. Cost Recovery

No comment.

17. Budget Guidelines

No comments.

18. Reporting Process

No comments.

19. Commission Audit

No comments.

20. CHP

Combined heat and power is the simultaneous production of both electricity and heat from a single fuel source. The technology is a very efficient alternative to traditional use of separate heat and power to supply buildings. CHP's energy efficiency proposition stems from the capture and use of the heat to offset boiler fuel or electric chiller consumption. Unlike traditional energy efficiency technologies, the technology does not replace an existing product with a higher efficiency version. CHP technologies meet building loads in a more efficient (and lower cost)

manner, thereby creating significant energy efficiency when evaluated on a primary fuel basis. In order to evaluate the energy savings resulting from combined heat and power, a comprehensive evaluation of the primary energy consumption, such as that achieved by using the Total Resource Cost test, is necessary.

Combined heat and power technologies are a single integrated efficiency measure that can meet the energy needs of a building or facility more efficiently than traditional separate heat and power. To evaluate the efficiency achieved through CHP, the CHP project should be evaluated in a comprehensive manner and not separated into sequential processes that are evaluated independently.

Natural gas is the most common fuel for CHP systems, although a number of renewable fuels, including landfill gas, biogas, digester gas, and opportunity fuels, can be used also. CHP is the most efficient means to bring renewable biomass energy to market.

As pointed out by the PSC, the state has an installed base of CHP today. This base is characterized by large projects at industrial sites. Very few small-scale projects have been developed in the state. Because small projects (0.1-5 MW) have development costs similar in magnitude to large projects, these projects often need a financial incentive to achieve the returns required by investors. As a result, small projects can benefit most from an incentive provided through the energy efficiency program under consideration.

The PSC should consider the value of treating energy produced by a distributed generation facility, including CHP, as energy efficiency (demand-side resource), provided that the power is consumed behind the customer's meter. On the other hand, any electric power exported from a distributed generation facility to the power grid has the characteristics of wholesale power (supply-side resource).

21. EE Programs that Promote Fuel Switching

Electric to natural gas fuel switching should be incentivized only when the change increases the efficient use of energy. Natural gas water heating, natural gas clothes dryers, and combined heat and power are examples of technologies that meet this requirement. In the same way, natural gas to electric fuel switching should be incentivized only when the change increases the efficient use of energy.

22. Other Issues

No comments.

The GC RAC appreciates the opportunity to file these comments.

Respectfully submitted,

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