

**BEFORE THE CALIFORNIA ENERGY COMMISSION  
OF THE STATE OF CALIFORNIA**

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In the Matter of:

Preparation of the  
2009 Integrated Energy Policy Report

Docket No. 09-IEP-1

**COMMENTS OF THE COGENERATION COUNCIL OF CALIFORNIA, THE  
COGENERATION ASSOCIATION OF CALIFORNIA  
AND THE ENERGY PRODUCERS AND USERS COALITION ON  
THE DRAFT 2009 INTEGRATED ENERGY POLICY REPORT**

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**I. INTRODUCTION**

The California Cogeneration Council,<sup>1</sup> Cogeneration Association of California<sup>2</sup> and the Energy Producers and Users Coalition<sup>3</sup> (CHP Stakeholders) submit these comments to the California Energy Commission (Commission) on the Draft Committee 2009 Integrated Energy Policy Report (Draft IEPR). The CHP Stakeholders commend the Commission for its continuing support in the Draft IEPR for combined heat and power (CHP)<sup>4</sup> applications in California. In light of the Draft IEPR's focused and capable treatment of these resources, these comments offer only limited recommendations for refinement of the Draft IEPR. Specifically, the CHP Stakeholders request more explicit acknowledgement in

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<sup>1</sup> CCC is an ad hoc association of natural gas-fired cogenerators located throughout California. In aggregate, CCC members' 32 combined heat and power projects generate about 1,300 megawatts.

<sup>2</sup> The Cogeneration Association of California represents the combined heat and power and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

<sup>3</sup> The Energy Producers and Users Coalition is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LLC, Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc..

<sup>4</sup> CHP and cogeneration are used interchangeably in these comments.

the Draft IEPR that many CHP applications may have limited or no ability to permit the dispatch of the electric generation without adverse consequence to the facility's thermal host. In addition, the CHP Stakeholders encourage the Commission to outline in the final IEPR more direct and timely action to implement CHP policy, supporting the California Air Resources Board (CARB) in the adoption of mandates to increase efficient CHP in the State.

## **II. THE DRAFT IEPR PROVIDES CONTINUED, CLEAR SUPPORT FOR CHP.**

Since the Commission issued the first IEPR in 2003, the IEPRs have consistently supported CHP. The Commission's recognition of the benefits of CHP in the Draft IEPR echoes prior IEPRs:

*CHP, also known as cogeneration, is the most efficient and cost-effective form of distributed generation, providing benefits to California citizens in the form of reduced energy costs, more efficient fuel use, fewer environmental impacts, improved reliability and power quality, locations near load centers, and support of utility transmission and distribution systems.<sup>5</sup>*

While these CHP benefits have been important historically, they have taken on greater importance with the enactment of Assembly Bill (AB) 32. Achieving high fuel use efficiency, with the accompanying greenhouse gas (GHG) emissions reductions, and without compromising reliability, are key in achieving California's AB 32 objectives. As CARB recognized in its Scoping Plan, with the elimination of barriers and reinforcement of CHP policy, additional CHP could lead to annual GHG emissions reductions of up to 6.7 MMtCO<sub>2</sub>e.

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<sup>5</sup> Draft IEPR at 92; see 2003 IEPR at 15-24.

The Draft IEPR, recognizing the importance of CHP, makes several recommendations.<sup>6</sup>

1. The Commission should work with the CARB to “*structure CHP programs to ensure development of both small CHP systems (20 MW and smaller) and large CHP systems (larger than 20 MW)....*”
2. The Commission and CARB should “*establish minimum efficiency standards, GHG emission criteria and monitoring and reporting mechanisms.*”
3. “*Electric utilities should develop program and solicit projects to promote CHP as a strategy to replace boilers, increase energy efficiency, and reduce emissions*” through a mix of measures, including “*an electricity export sales tariff.*”
4. CHP should be reinstated as an eligible resource under the Self Generation Incentive Program.

These recommendations, while very general, hit the nail on the head. It will take coordinated agency action and utility cooperation to enable a workable CHP policy for California.

### **III. THE DRAFT IEPR SHOULD BE MODIFIED TO BETTER REFLECT THE NON-DISPATCHABLE NATURE OF MANY CHP APPLICATIONS.**

The Draft IEPR rightfully observes that dispatchable generation will be important in integrating a higher level of renewable resources.<sup>7</sup> The Draft IEPR takes the strong interest in dispatchable resources a step too far, however, suggesting that CHP resources are dispatchable. As discussed below, many CHP applications – particularly some of the larger, most efficient applications --

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<sup>6</sup> Draft IEPR at 222.

<sup>7</sup> See, e.g., Draft IEPR at 72, 134 and 179.

are non-dispatchable, and dispatchability should not be viewed as a requirement for resources participating in a CHP program.

In proposing the joint action of the Commission and CARB to structure CHP programs, the Draft IEPR recommends that the programs focus on CHP systems “*that are dispatchable.*”<sup>8</sup> While this characteristic is unquestionably beneficial for California, placing the programs as restrictions in CHP eligibility in a state-administered program will severely limit program development. Program limitations, in turn, will prevent California from ensuring that its natural gas resources are used in the most efficient manner, from balancing the need for reliability with environmental concerns and from meeting CARB Scoping Plan goals.

Many CHP applications have a limited capability for dispatch – increasing or reducing the level of generation. A CHP facility that is most efficiently sized produces thermal energy to meet its host’s thermal demand. In meeting thermal demand, electricity beyond the host’s electrical demand may be produced and exported to the grid. In cases where the project matches or falls short of meeting thermal demand, CHP will typically be operating at its maximum capacity; there is little ability of a CHP facility to “turn up” its generation to meet additional grid electricity demand. Likewise, there is little ability to “turn down” the electric generation to reduce exports because to do so would result in a failure to meet thermal host demand. These circumstances are typical in petroleum refining and enhanced oil recovery operations, which are continuous processes, and in hospitals and other public institutions.

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<sup>8</sup> Draft IEPR at 9, 222.

While many CHP operations may not have dispatch capability, some may have a range of flexibility. For example, some CHP facilities may operate in applications where the host process is not continuous, such as a school, a commercial office building using the CHP for a cooling process or a non-continuous industrial process. During periods when serving the host thermal demand is reduced or not present, the resource may have some ability to turn up the generation level. Likewise, some operations may have some flexibility in shifting thermal demand from one period to another to reduce grid output during critical periods. Finally, some operations, where equipment choices dictate a facility that has a greater thermal capability than is actually required by the host, could have an ability to turn the generation up or down.

A successful CHP program will have a mix of applications with varying dispatch capabilities. Excluding resources with continuous operations, and thus a very limited ability to dispatch, would reduce fuel efficiencies and increase GHG emissions. Excluding facilities with the ability to dispatch, but a lower efficiency level and higher GHG emissions, would reduce the flexibility of the grid in meeting California demand. Any program designed by the Commission and CARB must therefore set eligibility criteria to accommodate both types of resources.

#### **IV. THE DRAFT IEPR SHOULD BE MODIFIED TO ENCOURAGE UTILITIES TO ACCOMMODATE CHP IN THEIR PORTFOLIOS.**

The Draft IEPR observes that matching the CHP resources with utility needs is an important goal.<sup>9</sup> The Draft IEPR suggests that program design

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<sup>9</sup> See, e.g., Draft IEPR at 72, 134 and 179.

should ensure development of CHP resources that “*have a profile that meets utility needs.*”<sup>10</sup> Once again, the Commission should be cautious to avoid translating this observation into a justification for utilities to avoid CHP procurement.

The interaction between CHP and “utility need” is complex. The Draft IEPR may give the misimpression that CHP is an afterthought, to be integrated only once the utility has assembled its portfolio and determined if there is any remaining need. To the contrary, CHP should be given a priority in the portfolio. This means that the utilities may not fill their portfolios with other new baseload resources, particularly utility-owned resources, and thereby crowd CHP out of the portfolio. The final IEPR thus should clarify that CHP should be prioritized by the utilities over other conventional baseload resources in meeting utility needs consistent with the Energy Action Plan loading order.

**V. THE COMMISSION SHOULD MAKE A STRONGER STATEMENT OF GOALS TO EXPEDITE PROGRESS TOWARD IMPLEMENTATION OF A STATE-ADMINISTERED CHP PROGRAM.**

The Draft IEPR lays out the general recommendation that the Commission and CARB jointly design a program to encourage large and small CHP. The final IEPR would benefit from refinement of this recommendation, specifying the necessary elements of such a program and strengthening the agency’s resolve.

Both the Commission and CARB have recognized in the past that barriers are preventing California from maximizing its CHP potential. The 2007 IEPR, for example, found that “[a]ll nonbypassable charges should be eliminated for DG

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<sup>10</sup> Draft IEPR at 9, 222.

*and CHP and standby reservation charges should be removed for DG.”*<sup>11</sup>

Likewise, it recommended that California “[s]treamline utilities’ long-term contract processes so that CHP owners can easily and efficiently sell their excess electricity to their local utility.”<sup>12</sup> Finally, the Commission recommended the following:

- ⇒ *“By the end of 2006, the Energy Commission and CPUC should collaboratively translate this goal (5400 MW of CHP by 2020) into annual IOU procurement targets.”*<sup>13</sup>
- ⇒ *“A DG portfolio standard (which would include CHP) should be developed. In the alternative CHP and DG should be treated like efficiency programs.”*<sup>14</sup>
- ⇒ *“Programs should be established to allow high efficiency CHP to export power more easily to the utilities. Options could include ... Allowing CHP output to count towards energy efficiency targets [or] Creating a CHP portfolio standard.”*<sup>15</sup>

CARB has echoed the concern over barriers. In its 2008 Scoping Plan, CARB noted that *“California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential.”*<sup>16</sup> It further observed: *“[t]he CEC listed several recommendations in its 2007 IEPR to address the more critical barriers and provide adequate support for CHP system development, including the following:*

- *The CPUC’s self-generation program incentives should be based upon overall efficiency and performance of systems, regardless of fuel type.*

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<sup>11</sup> 2007 IEPR, at 163.

<sup>12</sup> 2005 IEPR, at 78.

<sup>13</sup> 2005 IEPR, at 77.

<sup>14</sup> 2007 IEPR, at 163.

<sup>15</sup> 2007 IEPR, at 163-164.

<sup>16</sup> CARB Scoping Plan at 44.

- *The CPUC should complete a tariff structure to make CHP projects cost and revenue neutral while granting owners' credit for system benefits such as reduced congestion.*
- *The CPUC and CEC should eliminate all non-bypassable charges for CHP systems regardless of size or interconnection voltage and standby reservation charges.*
- *The CPUC should refine the Rule 21 interconnection standards, provide third party resolution of interconnection issues and streamline permitting.*
- *The CPUC should develop a distributed generation (including CHP) portfolio standard regardless of size or interconnection voltage for electric utility procurement plans. Alternatively, the utilities could be required to treat distributed generation and combined heat and power, regardless of size or interconnection voltage, like efficiency programs.*
- *The CPUC should adopt revenue neutral programs that enable high-efficiency CHP systems to more easily export power to interconnected utilities without additional transmission system charges.*
- *The CPUC and the Energy Commission should continue to work collaboratively to develop a methodology to estimate distributed generation costs and benefits.*
- *The state should adopt greenhouse gas measures and regulations that fully reflect the benefits of combined heat and power with separate production of thermal and electric energy.”<sup>17</sup>*

In short, both agencies are quite clear on the range of barriers preventing California from maximizing its CHP opportunities.

To strengthen the final IEPR, the CHP Stakeholders offer two recommendations. First, the Commission should review and restate in the final IEPR the list of remaining barriers to CHP deployment. In its review, the Commission will find that, generally, the barriers have not been addressed. The only meaningful change has been the California Public Utilities Commission's

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<sup>17</sup> CARB Scoping Plan, Appendix C at C-124-C125.

(CPUC) well-considered D. 08-09-012, which exempted Customer Generation Departing Load, including CHP, from the utilities proposed nonbypassable charges for certain ongoing procurement activities.

Second, in light of this slow progress, the Commission should strengthen the language suggesting CARB and the Commission coordinate on CHP policy. CHP policy has been languishing for more than a decade, despite the CPUC's periodic promises to take action. CARB's Scoping Plan recognized this problem and strongly recommended that the CPUC and the Commission "*address the IEPR recommendations and remove the most significant CHP market barriers.*"<sup>18</sup> CARB contemplated that it may need to evaluate "*the need for additional mandates*" unless "*market barriers, and utility support for CHP system owners, are appropriately addressed by the state's energy agencies.*"<sup>19</sup> In the absence of near-term action by the CPUC, the final IEPR should state the CEC's intent to support CARB in the development of CHP mandates and other measures to remove market barriers.

## **VI. CONCLUSION**

The Commission should modify the Draft IEPR in the following ways:

1. Clarify that the state-administered CHP program contemplated by the IEPR will include both dispatchable and non-dispatchable resources without discrimination.
2. Clarify that the utilities should place CHP policy implementation ahead of contracting for or developing other baseload resources.
3. Review and restate the list of barriers to CHP policy deployment.

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<sup>18</sup> CARB Scoping Plan, Appendix C at C-125.

<sup>19</sup> CARB Scoping Plan, Appendix C at C-125.

4. State the intent to support CARB in the development of CHP mandates and other policy measures in the absence of near-term action by the CPUC.

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Respectfully submitted,

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