

**STATE OF CONNECTICUT  
DEPARTMENT OF PUBLIC UTILITY CONTROL**

**DPUC Investigation Of Measures** : **Docket No. 05-07-14PhII**  
**To Reduce Federally Mandated** :  
**Congestion Charges** : **November 4, 2005**

**REPORT  
OF THE  
CONNECTICUT ENERGY ADVISORY BOARD**

**I- INTRODUCTION**

This report contains the Connecticut Energy Advisory Board’s (“CEAB’s”) recommendations to the Department of Public Utility Control (“DPUC” or “Department”) regarding the implementation of the Department’s responsibilities pursuant to the Energy Independence Act (“Act”), particularly, but not only, its Section 12 (c). Phase I of this proceeding was devoted to the procurement of those resources that might provide near-term benefits, as such are defined in Section 12 (a) of the Act.<sup>1</sup> The current phase of the proceeding – that is, Phase II – seeks measures that can mitigate federally mandated congestion charges (“FMCCs”) in later 2006 and in the 2007 to 2010 period (and possibly longer term). As with Phase I, Phase II has a near-term FMCC-mitigation emphasis, although it is not subject to the specific time-frames and objectives of Section 12 (a).

The timing for Phase II is driven by the requirements of the Act’s Section 12 (c) and (g) which mandate that the Department issue an RFP by February 1, 2006 (the “February RFP”) with proposals to be evaluated by May 1, 2006. The February RFP, by the terms of Section 12(c), must be open to resources of all types. However, the February RFP must give preference to those resources that are effective in reducing FMCCs in the

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<sup>1</sup> Near term resources, per Section 12 (a), are those resources that can provide system benefits (reduced FMCCs) and be implemented “... in whole or in part, on or before January 1, 2006.” Contracts to acquire and utilize these resources may be longer or shorter, as the case may be, but they must meet the statutory constraint.

May 2006 to December 2010 period, which utilize existing sites and infrastructure, and which are in the best long term interest of ratepayers.

In its Phase I brief (submitted October 17, 2005), the CEAB made a number of recommendations regarding the procurement of near-term resources, including:

- (1) the procurement of up to 200 MW of capacity based resources, with
- (2) amounts allocated to both the electric distribution companies and to the private sector, wherein
- (3) the latter would be obtained through a competitive 'open season' process to begin as soon as possible.

In addition to the foregoing, in Phase I the CEAB also recommended:

- (4) the implementation of an on-going process in which mutually beneficial renegotiations with both GAP RFP and RMR contracts would be sought.

The CEAB's recommendations for Phase II, which will be discussed below in more detail, are that:

- (1) the February 1, 2006 RFP be relatively limited in scope (up to 200 MW), and that
- (2) a separate RFP(s) be issued for larger, longer lead time resources, including both new and repowered non-peaking generation.<sup>2</sup>

In effect, the recommendation is to bifurcate the RFP process. The basic rationales for the bifurcation are (1) the rapid implementation required by the Act for the February RFP, (2) the present uncertainties in the development of the regional capacity market<sup>3</sup>, (3) the current and near-term limits of the transmission infrastructure to accommodate incremental supply resources, (4) the risk management advantages of this approach, and (5) the substantial, not yet adequately answered, questions regarding long-

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<sup>2</sup> Note that Section 12 (k) of the Act states specifically that the Department is not precluded from conducting RFPs, in addition to that required under Section 12 (c), so as to reduce FMCCs.

<sup>3</sup> On October 21, FERC issued an order implementing a settlement process for the LICAP proceeding requiring any alternative settlement proposals to be filed by January 31, 2006.

term planning issues. These include the ongoing need for RMR contracts, long-term gas supply, transmission (and deliverability) constraints, and potential power plant retirements. In other words, until there is more clarity from the Federal Energy Regulatory Commission (“FERC”) regarding the installed capacity and locational forward reserve markets, as well as the long-term planning issues, the CEAB believes that it would be prudent to separate the procurement of major, longer lead time resources -- that are not likely to reduce FMCCs in the 2007-2008 period -- from those that can be implemented sooner.

The CEAB also notes that the DPUC has the discretion under the Act to conduct RFPs, as it deems necessary to reduce FMCCs (Section 12 (k)). Hence, the February RFP may be the first of one or more subsequent RFPs. While the CEAB believes that it is important for the DPUC to conduct the February RFP, both to mitigate FMCCs and to build the capacity to implement competitive resource procurements, it need not, and as a practical matter should not, exceed the limited scope described in this report.

The procurement process for the major, longer lead time resources requires more time and effort, for a number of reasons, not the least of which is the due diligence process. The CEAB recommends that the state’s process for acquiring larger, longer term resources begin in February (or later, dependent upon the timing of FERC’s ruling on capacity markets) with the public examination of the CEAB long term needs assessment, followed by the issuance of a solicitation in late spring or early summer.<sup>4</sup> The state would proceed to conclude resource selection and contracting as quickly as possible thereafter, albeit without foregoing the important planning and due diligence requirements that are necessary for contractual commitments of this magnitude.

The CEAB intends to file a long term report with the Department in late February, 2006 so that the report can account for and address FERC’s ruling regarding ISO-NE’s

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<sup>4</sup> The timing for the actual procurement will be driven by, *inter alia*, when the FERC makes its determinations regarding the capacity market, and the length of the review process of the CEAB report. Hence, the late spring-early summer start date is a reasonable assumption at this point; but it could change as events unfold.

proposed capacity markets; that ruling is expected sometime soon after January 31, 2006. If the FERC decision is for any reason later than that, the CEAB suggests that it would be sensible for its long term analysis to be postponed until several weeks after the decision is issued.

The CEAB is of the view that both the Phase I and February RFP resource procurement processes should acquire resources at a measured pace. Taken together, the CEAB recommends a Phase I and II procurement that totals up to 400 MW, which should be targeted to projects and locations that offer the best near-term FMCC mitigation value. This level is sufficient to meet important, nearer-term FMCC mitigation objectives and, at the same time, to minimize the risks of over commitment. On the other hand, it is not so large that it will preclude additional, longer lead time projects. As the capacity and reserves market designs are resolved and important longer term resource planning issues are addressed, the more substantial procurement process can be implemented (and finalized) with a better view of the outlook for Connecticut's needs and FMCC exposures.

The balance of this report describes the foregoing in more detail. Section II provides some useful background information. Section III discusses the February RFP process, while Section IV addresses the CEAB recommendations regarding a later RFP for longer term resources. Finally, Section V is a brief conclusion.

## **II- BACKGROUND**

In the CEAB's view a number of things became clear in the Phase I proceeding: that Connecticut needs peaking capacity and peak load management resources, particularly in southwest Connecticut ("SWCT"), to reduce FMCCs in a cost effective manner; that such resources can be provided by (or through) both the electric distribution companies and market participants; and that there may be room to renegotiate some of the present resource contracts in ways that are mutually beneficial to the resource providers and Connecticut ratepayers. It is also clear that the more typical market

uncertainties – what one confronts in markets in general – have been exacerbated by the present lack of clarity about the prospective structure of the capacity market, and the obvious lack of any experience with how it will operate (and with what price levels and volatility). Moreover, of course, whether or not the design of the market will, in actual practice, facilitate the development of major generation facilities may not be known for some time.<sup>5</sup> Hence, the impact of that market on the need for RMR (or RMR-type) agreements, for example, is also uncertain.

Significant uncertainty -- markets always have *some* risk and uncertainty -- should not lead to inactivity. Rather, it is the CEAB's view that today's circumstances warrant a cautious approach to risk mitigation. This uncertainty, in addition to the statutory need to move quickly to obtain near term resources, led the CEAB in Phase I to recommend a limited procurement – approximately 200 MW – from the electric distribution companies and the market, as well as a contractual renegotiation effort. The CEAB referred to this as procurement at a “measured pace”.

At the time of this writing, only weeks after that recommendation, there is no reasonable way to conclude that the information requirements have been satisfied or that market uncertainties have been mitigated sufficiently to warrant a change in this view. Nor does the CEAB believe that one should decide now that the procurement of resources through the February RFP be undertaken at anything other than a similar “measured pace” – or, in the CEAB's view, up to an additional 200 MW, for a total of up to 400 MW.

Connecticut's long term needs, however, are likely to be much more substantial than this. In addition to the requirements for incremental resources to meet load growth and other reliability requirements of the power system, a significant amount of generating capacity resident in Connecticut is at an age where material investments in life extension, repowering, or replacement will be required to maintain current levels of local power

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<sup>5</sup> The key issue is whether the price ‘signals’ in the LICAP market, based upon the relationship between capacity requirements and capacity resources today, will be a sufficient basis for the long-term financing requirements of new (or repowered) generation.

supply. Issues of project lead times, transmission upgrades, and fuel supply infrastructure may inhibit, and in some instances, preclude the implementation of some supply projects before 2009 or 2010. However, so as to minimize the constraints and thereby facilitate project implementation, it is essential that planning take place, and that important procurement decisions are made, in 2006.

### **III- The February 2006 RFP**

#### **A. The Energy Independence Act, Sections 12(c) and (g)**

The Act (Section 12) requires that the Department issue an RFP by February 1, 2006 and that it evaluate the proposals by May 1, 2006. Although the Act does not require that the resources be available to reduce FMCCs in May, it clearly expresses a preference for those resources that can reduce FMCCs in the period from May 2006 to the end of 2010 (Section 12 (g)). The RFP must solicit customer-side distributed and other resources, grid side distributed generation (DG), and new generation; and no contract for capacity can exceed 15 years (Section 12 (c)). The distribution companies, as well as their affiliates, are entitled to submit bids. Post-selection, the contracts are subject to the approval of the Department, as long as they result in the lowest reasonable cost for the resources, increase reliability, minimize long term risk to ratepayers, and do not exceed 15 years. The contract as a whole must also contain terms that mitigate the long-term risk assumed by ratepayers (Section 12 (i)).

#### **B. February RFP: Objectives**

The February RFP process will accomplish three broad objectives. The first, and the more obvious, is the procurement of the resources to mitigate FMCCs. The second is that the process will test the market for the availability of preferred resources, such as distributed generation, combined heat and power (CHP), and demand response (DR). And the third is a message to the market that the state will indeed act to mitigate electricity costs and not rely solely on the market or on contracts – such as RMR and

GAP RFP agreements – between resource providers and ISO-NE that have been very costly to Connecticut electricity consumers.

Clearly, the RFP will be a test of the extent to which the solicited resources can be developed in Connecticut. Although not a market test, representations have been made in Phase I regarding the resources that might be developed, presumably in the event that mutually acceptable contracts are executed between them and an electric distribution company (see Attachment A).<sup>6</sup> These representations were welcome and instructive, of course, and provide some reason for confidence regarding the development of cost-effective resources in the state. But it will be the RFP process that will be determinative.

### **C. February RFP: Recommended Boundaries**

As the Department surely intends – and is examining in another proceeding<sup>7</sup> – the RFP process must be fair and transparent and designed to encourage a variety of responses. Obviously, these general requirements for any RFP do not mean that the procurement should be unbounded. What, then, are the boundaries?

The CEAB recommends that the magnitude of the February procurement be constrained for four broad reasons:

- (1) the uncertainties are substantial, particularly as they pertain to the capacity markets;
- (2) this will be the first RFP issued and administered by the Department;

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<sup>6</sup> The CEAB notes, as it did in its Phase I brief, that any procurement from market participants be open to all such entities, not solely those that were involved formally in Phase I.

<sup>7</sup> Docket No. 05-07-20, Development of Process and Standards for Competitive Solicitation of Long Term Projects to Reduce Federally Mandated Congestion Charges.

(3) the Act's February RFP time frame is quite compressed<sup>8</sup>, particularly for larger resources that require more rigorous due diligence commensurate with the more substantial ratepayer commitment; and

(4) there are practical limits to the size and number of resources that can be accommodated within the existing infrastructure, which constrains the ability to comport with the Act's preference for resources that can reduce FMCCs in the May 2006 through year-end 2010 period.

The CEAB has proposed, and reiterates here, that a reasonable constraint in the circumstances is in the 200 MW range. This amount is large enough to acquire, for example, a peaking facility, as well as a significant amount of other types of resources, to which the RFP must be open. On the other hand, the amount is not large enough to have a significant impact on Connecticut's overall long-term resource requirements; hence, it will not preclude the development of other, perhaps more substantial, longer term projects.

In addition to the 200 MW limit, the focus should be on resources in SWCT, the region with the most substantial needs. And, consistent with the CEAB recommendation in Phase I, it is recommended here that the price to be paid for resources be limited to \$100/kilowatt-year ("kw-yr"). The continuing uncertainties in the capacity markets warrant this constraint, although pertinent information regarding these markets is likely to become known during the course of the February RFP process. Therefore, the February RFP documents should reserve the general right to decline to procure any resources and the more particular right to decline any specific resource that fails to meet the price or other significant criterion.

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<sup>8</sup> The process begins in February and evaluations will be made by May. As a practical matter, between the up-front notice requirement, bidders conference, exchanges of information and the like, on the one hand, and the time required for the evaluation itself, on the other, there will be limited time period during which proposals will be prepared and finalized.

Finally, the resource selection process should favor those resources with a near term impact on FMCCs which, in this instance, means the period between May 1, 2006 and the end of 2010 (Section 12 (g)). To be clear, the CEAB reiterates an important point from its Phase I brief (page 4), that the phrase ‘near term resource’ is “...not meant to be indicative of... the length of any contracts with such resources. Hence a contract with a near term resource can be relatively short or relatively long, as the case may be.” As a general rule – witness the GAP RFP resources – the shorter the contract for a given resource, the greater the annual costs.

**D. February RFP: Some Suggested Issues for DPUC Consideration**

The CEAB believes that its recommendations regarding the February RFP’s boundaries – 200 MW, a SWCT and near term emphasis, and a price limit of \$100/kw-yr -- are quite reasonable and proper in the circumstances. Nonetheless, it is fair to assume that others may have different ideas. In the event that others urge the DPUC to take a very different approach, some of the issues and questions that might be explored by the DPUC are as follows:

- (1) whether the February procurement should be bounded and, in addition, whether bounded procurements tend to increase competitive pressure on bid prices; and if the up to 200 MW CEAB recommendation is not appropriate, what would be?
- (2) the rationale for any suggestion that the procurement not have an upper bound with respect to either megawatts or price;
- (3) whether ISO-NE’s statements that 530 MW of quick-start generation is needed (350 MW in SWCT) is firm and adequately justified; whether the 530 MW is incremental to existing resources;

whether if some or all were obtained, the state could avoid an equivalent amount of current RMR capacity;

- (4) The consequence to the state if it does not have sufficient resources to satisfy ISO-NE's reliability criteria; for example, would ISO-NE 'acquire' such resources through mechanisms such as RMR agreements or GAP RFP resources? Would such 'acquisitions' be likely to be more expensive on an annual basis than resources obtained through the February RFP and properly structured (and perhaps longer term) contractual arrangements?
- (5) The extent to which the existing infrastructure in SWCT is constrained during the next few years;
- (6) whether the savings associated with FMCCs other than LICAP and RMR are large and certain enough to warrant a more expansive RFP;
- (7) and others.

It is evident to the CEAB that ISO-NE's conclusions regarding reliability requirements and the need for capacity to satisfy them are at the core of the issues and questions that should be examined during the proceeding. It is also essential that ISO-NE describe the steps that it would take – precisely if now known – in the event it perceives a state shortfall. Obviously, the information available from, and views of, the electric distribution companies and all other parties will also inform the process; but ISO-NE's conclusions, recommendations, and ability to act (i.e., RMR agreements and the GAP RFP) are at the center.

#### **E. February RFP: Priorities**

Whatever the Department determines to be the magnitude of the February RFP, the CEAB also recommends that it have the following priorities:

- resources that can begin to provide system benefits in the 2006/2007 time frame and which will have minimal implications for transmission and/or natural gas infrastructure development<sup>9</sup>;
- quick-start peaking resources that can provide benefits in the short- and longer-term; and
- distributed resources that are available either now or in the very near future.

The February RFP (including contracts), and the associated RFP process, will be developed in this phase of the proceeding, as well as in Docket 05-07-20. In addition, upon the selection of an entity by the DPUC to implement the RFP, there will almost certainly be some sort of process in which the RFP will reach greater levels of detail and sophistication. The CEAB assumes that the process will focus on such matters as the preparation of the solicitation documents; evaluation metrics, including whether (and if so how) to factor in project benefits other than the reduction of FMCCs; project milestone provisions and contracts; the extent and nature of the qualification and due diligence procedures; and so on.<sup>10</sup> The CEAB offers whatever assistance may be helpful to the DPUC as it proceeds through these decision points.

#### **IV- Recommendation for a Separate RFP for Longer Term Resources**

##### **A. An RFP for Longer Term Resources Should Follow a Longer Term Resource Assessment**

During the next few months, it is anticipated that some of the uncertainties associated with the region's locational installed capacity and forward reserve markets will be resolved. With respect to the former (LICAP), the current settlement process is

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<sup>9</sup> This means, in effect, that those resources that cannot provide system benefits until the Phase II transmission project is completed should not be priorities in the February 2006 RFP process.

<sup>10</sup> The DPUC may also want its solicitations to be informed by, for example, the 100 MW program and other DG incentive programs.

expected to extend through January, 2006 after which there will be a FERC decision. Moreover, additional information from ISO-NE will be available, including, potentially, the Southern New England Reliability Project (“SNERP”) planning study (due by the end of December), the 2006 load forecast (although typically not finalized until April), and more details regarding the proposed Locational Forward Reserve Market.

The CEAB’s long term assessment of Connecticut’s resource requirements will provide a synopsis of the foregoing and address several of the issues that are critical to the procurement of longer term resources. The focus of the CEAB’s long term assessment will include, *inter alia*:

- Generation supply attrition issues and risks, including:
  - gas supply and cost issues
  - deliverability of power during high load periods
  - environmental objectives
  - aging units and the potential for renewal/repowering.
  
- Outlook for 2009-2015 time period, including:
  - Congestion in Connecticut and implications for reliability measures, OpCap, Objective Capability (OC), Spinning Reserves
  - Supply and demand forecasts
  - Market structure and market issues
  - Fuel diversity, fuel supply constraints and risks
  - Environmental requirements, performance measures
  - Assessment of types/amounts/locations of capacity needs
    - LICAP, OpCap, Operating reserve requirements
    - Power plant retirements, implications

- Transmission and other alternatives, considerations.

It is the CEAB's view that an RFP for more substantial resources – in size and, hence, in implications for the system – should not be implemented until both the uncertainties associated with the capacity markets are reduced and the CEAB's long term assessment is disseminated, debated, and reviewed. In addition, the February RFP will provide clearer market information on the availability of resources with high preference as established in the Act. It is for these broad reasons that the CEAB has taken the position that the Department's RFP process should be bifurcated, with a limited solicitation in February and one later in 2006. The scope and priorities of the latter will become clearer in the coming months, but can nonetheless be addressed generally (see below). The CEAB proposes to file the longer term assessment with the Department and recommends that a proceeding be opened for purposes of the foregoing review, as well as issues associated with the development of the long-term RFP.

### **B. Recommendations Regarding the Longer Term Resource RFP**

The CEAB's earlier observation that this RFP process might begin in the late spring-early summer time frame is predicated upon a review and RFP development process that can be completed by that time and the late February filing of the CEAB's long term resource assessment. At this juncture, the CEAB has two primary recommendations regarding the RFP process: (1) the general scope, and (2) the implementation process and a suggestion regarding possible coordination with the CEAB's proactive RFP responsibilities under Conn. Gen. Stat. Sec. 16a-7c.

The general scope of the longer term RFP should be as follows:

- all resources, including long term supply options:
  - Repowering/reuse of existing generation assets/sites;
  - Development of permitted generation sites;
  - New generation projects;

- Targeted timeframe: 2009 and beyond.

With respect to the implementation of the procurement process, as the DPUC is aware, the CEAB is directed by statute to prepare a comprehensive energy plan on an annual basis and to participate in regional energy planning processes. Conn. Gen. Stat. Sec. 16a-3(b). Further, the CEAB has the obligation to conduct RFPs for alternative solutions to proposed energy facilities and the opportunity to issue RFPs for solutions to energy needs it identifies in planning activities. In those contexts and where relevant, the CEAB's RFPs are to solicit proposals that include energy efficiency and distributed resources. Conn. Gen. Stat. Sec. 16a-7c(b) and (c). As a consequence, the CEAB is currently preparing standard RFP protocols and associated documents to enable RFPs for diverse resources.

The fundamental point of the CEAB's RFP responsibilities - to look broadly at all potential solutions to an identified need - is in accord with the Energy Independence Act's direction to the DPUC to consider a range of resource solutions. The CEAB suggests that the CEAB and the DPUC might consider areas where coordinating resource solicitations may increase efficiencies and streamline processes to the benefit of participants and the state. The CEAB offers whatever assistance the DPUC may find beneficial to the state's goal of securing appropriate resources efficiently, judiciously, and in the optimal time frame.

## **V- Conclusion**

The CEAB recommends that the DPUC solicit resources at a deliberate pace. An RFP initiated in February and evaluated by May, consistent with Section 12(c) of the Act, should target up to 200 MW of resources. To the extent the DPUC departs from the recommended MW range, the CEAB offers that the DPUC's judgment on the amount of resources should be informed by answers to questions set forward in Section III. D., above, and by information from the ISO-NE. In CEAB's view, the February RFP should focus on the following resources: those that can begin to provide system benefits in the

near term, per the Act's preferences, and that will have minimal implications relative to transmission and/or natural gas infrastructure development; quick-start peaking units that can provide short and longer term benefits; and distributed resources that are available immediately or in the very near future.

In light of the need for incremental resources to meet load growth and the age of Connecticut's generating capacity, Connecticut's long term needs are likely to be much greater. While project lead times, completion of transmission upgrades and fuel supply infrastructure may be an impediment to implementation of some supply options prior to 2009 or 2010 it is important that planning and procurement decisions are made in 2006. Therefore, a separate RFP for more substantial, longer lead time and longer term assets based on further market information and administered on a time schedule that accommodates appropriate due diligence, should ensue. In the CEAB's view, this approach would enable the state to procure resources in the near term to reduce FMCCs while minimizing the risks associated with making more substantial contractual commitments based on insufficient information.

Finally, the CEAB suggests that the DPUC and CEAB consider potential means to coordinate resource procurement capability. Coordinating capabilities could increase procurement efficiency, facilitate due diligence reviews commensurate with project risk, and expedite the time from RFP issuance to resource deployment.

## **Attachment A**

### **Phase I Representations – Potential Incremental Capacity**

The following list provides an overview of the range of resource options discussed by various parties to the proceedings. It is not a comprehensive summary.

**1. Expand Utility CLM Programs**

See CL&P September 2 Comments at 11-12.

See UI September 2 Comments at 7-11.

**2. Expand Load Response Programs (including Emergency Generators)**

See CL&P September 2 Comments at 11-13.

See CMEEC October 13 Brief at 15, 16.

See Comverge September 15 Comments at 2.

See EnerNOC September 15 Comments at 5.

**3. Expand/Accelerate the Contribution From Distributed Generation**

See CL&P September 2 Comments at 14-18.

See UI September 2 Comments at 12-13.

See Kimberly Clark September 15 Comments at 1-2.

**4. Sign Capacity Contracts.**

See CL&P September 2 Comments at 19.

See Dominion September 15 Comments at 4.

**5. Expand Contribution From Existing Peaking Facilities**

See Waterside Power September 15 Comments at 5.

**6. Install New Peaking Facilities Near Existing Critical Infrastructure**

See CL&P October 13 Brief at 8.

See NRG September 15 Comments at 6.

See Kleen September 15 Comments at 5.

**7. Develop Already-Permitted Large-Scale Generating Facilities**

See Kleen Comments from September 26 Technical Session 9.

See NRG September 15 Comments at 5.

**8. Develop (Repower) New Large-Scale Generating Facilities (Some at Existing Sites)**

See NRG September 15 Comments at 5-6.

See CMEEC October 13 Brief at 18.