

Appendix E: Public Comments

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SIGNIFICANT PUBLIC COMMENTS SUBMITTED PRIOR TO RELEASE OF THE DRAFT 2012 COMPREHENSIVE ENERGY STRATEGY (CES) DRAFT

On April 10, 2012, as part of the early scoping stage of the development of the 2012 CES, the Connecticut Department of Energy and Environmental Protection (DEEP) conducted the first of two stakeholder meetings at its offices at 79 Elm Street, Hartford, Connecticut. The purpose of that meeting was to obtain preliminary feedback from stakeholders on the scope of the CES. DEEP invited stakeholders to provide written comments on the CES's objectives with respect to the Electricity, Buildings, Industry, Transportation, and Natural Gas sectors and issued a follow up Notice of Request for Comments CES Scoping Stage dated April 13, 2012. In response, DEEP received 16 sets of written comments, representing the views of the following entities: Class III CHP Organization (C3CO); Connecticut Business & Industry Association (CBIA); Connecticut Fund for the Environment (CFE); The Connecticut Light & Power Company (CL&P); Connecticut Natural Gas Corporation (CNG); Element Markets; Environmental Energy Solutions (EES); Environment Northeast (ENE); Integrated Management Controls LLC (IMC); New England Power Generators Association (NEPGA); NRG Energy, Inc. (NRG); Office of Consumer Counsel (OCC); Public Utilities Regulatory Authority (PURA); Retail Energy Supply Association (RESA); Sierra Club; The Southern Connecticut Gas Company (SCG); UTC Power; and Yankee Gas Services Company (Yankee Gas).

On May 23, 2012, DEEP held the second of the two stakeholder meetings, at which DEEP and its consultants presented updated information on the strategies under consideration for the five CES sectors, and engaged stakeholders to identify areas of concern, issues for development and/or recommendations. Thereafter, by Notice of Request for Additional Scoping Comments dated May 25, 2012, DEEP requested written comments from stakeholders on the sector presentations.

DEEP received 15 sets of written comments from the following entities: Algonquin Gas Transmission, LLC (Algonquin); CFE; Connecticut Gas & Electric, Inc. (CG&E); Connecticut Geothermal Association (CGA); CL&P; CNG; Covanta Energy (Covanta); Direct Energy Services, LLC (DES); Dominion Retail, Inc. (Dominion); Energy Plus Holdings LLC (Energy Plus); Environment Northeast; EES; Greater New Haven Clean Cities Coalition, Inc. (GNHCCC); Interstate Gas Supply, Inc. (IGS); Kimberly-Clark Corporation (Kimberly-Clark); RESA; Sierra Club; SCG; Spectra Energy Corp. (Spectra); UTC Power; and Yankee Gas.

All 31 sets of written comments submitted on the 2012 CES proceeding, as well as the recordings of the April 10, 2012 and May 23, 2012 stakeholder meetings can be accessed via the DEEP website.¹ The purpose of this scoping stage was to evaluate the need to include additional areas as part of the scope of the CES. DEEP's consideration of these comments is discussed below.

¹ [http://www.dpuc.state.ct.us/DEEPEnergy.nsf/\\$EnergyView?OpenForm&Start=1&Count=30&Expand=4.3&Seq=2](http://www.dpuc.state.ct.us/DEEPEnergy.nsf/$EnergyView?OpenForm&Start=1&Count=30&Expand=4.3&Seq=2)

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This appendix attempts to provide a summary organized by sector, then by topic, of major comments.

ELECTRICITY SECTOR

Most of the written comments for the Electricity sector focused on issues relating to: the desire for a regional policy approach; infrastructure development; procurement; Connecticut's Renewable Portfolio Standard (RPS); concerns relative to reliability, security and microgrids; ratepayer cost components; and retail providers.

REGIONAL POLICY APPROACH

CL&P and Yankee Gas recommended that states adopt a regional "technology agnostic" structure to encourage clean energy development.

ENE believes that any changes to the generation side of this sector should be considered in the context of the regional Independent System Operator (ISO-NE) markets. For effective planning purposes, generation emissions should be looked at regionally. Accordingly, ENE recommended that any GHG modeling conducted for this sector should be sensitive to regional realities.

Moreover, ENE believes that any analysis of future energy issues in this sector should involve a review of the Regional Greenhouse Gas Initiative (RGGI). In ENE's view, this review should: (a) involve an assessment of RGGI's performance to date; (b) take into account the significant net benefits RGGI has provided (and will continue to provide) to Connecticut's energy efficiency (EE) efforts and economy; and (c) include a thorough assessment of how RGGI can best be used going forward to help transform Connecticut's energy system, to decarbonize its electricity sector, and to grow the economy.

INFRASTRUCTURE DEVELOPMENT

In CL&P's and Yankee Gas' joint opinion, Connecticut's renewables approach should focus on ensuring the completion of the most cost-effective clean energy projects first. By doing so, this would lead to priority funding for efficiency and C&LM projects, a reduction in the region's electric load, and thus a reduction in the required amount of renewable energy to meet Connecticut's RPS. The Sierra Club added that focus should be placed on finding ways to reduce permitting and other regulatory barriers to the development of renewable resources.

CL&P commented that the comprehensive view of the renewables strategy should not only look at GHG emissions, but also the cost impact to customers. CL&P believes that any emphasis on renewable development should be "technology agnostic" with a greater discussion of the impact of any renewable strategy on customer bills, including moving customers from fuel oil to natural gas. To that end, CL&P suggested that DEEP also consider what opportunities there may be to bring to Connecticut lower cost renewables from outside of the state.

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CFE believes that Connecticut should encourage the deployment of renewable energy throughout the regional grid, while maximizing development of in-state renewable resources. To ensure that cost-effective projects are brought to market in the region, CL&P and Yankee Gas asserted that it is key for each state in New England and the neighboring regions to work with each other to identify options and solutions for meeting renewable energy needs. NEGPA stated that the CES should examine and recognize the important benefits that accrue from local and regional generation development.

Relative to renewable development goals, CL&P suggested that these goals should be based on a variety of metrics without an emphasis on a particular metric, such as GHG emissions. CL&P stated that even before new renewable development goals are met, DEEP should take a fresh look at the existing RPS for Connecticut, and solicit comments from interested stakeholders prior to making any recommended changes to state legislature.

ENE suggested that the latest Integrated Resource Plan (IRP) should guide the further analysis of electric generation. NRG expressed that the CES should create a level playing field for the evaluation, procurement and financing of various electric supply resources. NEGPA commented that a balance must be struck to ensure that ratepayers receive the full benefits of a wholesale competitive electricity market rather than furthering guaranteed utility investment returns.

CBIA noted that natural gas and large-scale hydro are two energy sources that meet the “cheaper, cleaner and more reliable” criteria for the near term. Accordingly, CBIA believes that these sources merit strong focus for the interim period in the CES.

NRG stated that the CES should address the planned replacement of aging generation infrastructure, while recognizing the very long lead times for new generation, and even longer lead times for completing transmission resources proposed for a potential import power strategy. NRG added that the Montville Biomass project would provide 40 MW in renewable generation and would have the most significant impact on stated CES goals over the next 12-18 months.

ENE pointed out that 50% of Connecticut’s electricity generation comes from Millstone’s Units 2 and 3. Accordingly, ENE recommended that the analysis for the Electricity sector reflect the scheduled license expiration of Units 2 and 3 in 2035 and 2045, respectively. Should Millstone not be relicensed, ENE believes it could have significant impact on state and regional profiles for GHG emissions. Therefore, ENE proposed that any GHG emissions modeling for the CES should include a scenario reflecting the possible retirement of those units.

PROCUREMENT

NEGPA commented that any procurement of new resources should be done through an open, transparent and competitive process.

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RESA stated that DEEP should determine first what precipitated its review of Connecticut's approach to Standard Service procurement, and then, if changes are determined necessary, evaluate what changes will best achieve Connecticut's energy goals. In RESA's opinion, DEEP should not mistake changes in market prices for deficiencies in current procurement practices. If market changes warrant changes in the procurement process, then DEEP should ensure that a new process is designed to maximize market participation, provide accurate price signals, and avoid passing unnecessary risk on to ratepayers. Moreover, RESA believes that, rather than making wholesale changes to procurement strategies in response to market changes, DEEP should review whether modifications to timing, frequency, duration and layering of procurements will allow consumers to receive benefits of positive market changes.

CONNECTICUT'S RENEWABLE PORTFOLIO STANDARD (RPS)

DEEP received comments relative to Connecticut's RPS from CL&P, Yankee Gas, NRG, C3CO, ENE, Kimberly-Clark, NEGPA and Covanta.

CL&P and Yankee Gas stated that Connecticut's RPS goals should be reviewed to ensure that they are correctly sized to meet clearly defined and broadly accepted objectives. NRG commented that the CES should meet Connecticut's RPS targets while minimizing risk, maximizing reliability and providing maximum benefit to ratepayers and the economy.

C3CO expressed that Connecticut's RPS policy drives the development of out-of-state renewable resources at the expense of the customers and the developers of in-state combined heat and power (CHP) projects. C3CO believes that changes to the RPS are necessary to facilitate continued investment in CHP installations.

In light of the current oversupply of Class III RECs (due to the steep price decline for those RECs) and the shortage of Class I RECs, C3CO stated that solutions must be developed to stabilize Connecticut's RPS. Rather than finding ways to change RPS goals, ENE recommended that Connecticut instead focus on finding the best solutions to meet the established RPS goals.

Kimberly-Clark suggested that the CES should reflect the ability of CHP resources to mitigate the impact of Class I RECs shortage on ratepayers. Kimberly-Clark proposed an approach that would use green in-state DG resources (including Class III CHP resources) as a means to develop microgrids as an offset to the Class I requirement. Alternatively, Kimberly-Clark proposed consideration of creating a new RPS class for C&LM resources, an approach that C3CO also recommended. Kimberly-Clark added that this new class should be comprised entirely of CL&M projects; this would remove such resources from the Class III definition, thereby enabling Connecticut to realize RPS goals without negatively impacting Class III CHP resources.

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Kimberly-Clark proposed that the CES's recommendations should reflect the ability of CHP resources to mitigate the impact of the Class I shortage on ratepayers. To that end, Kimberly-Clark gave its support to the use of in-state DG resources. According to Kimberly-Clark, doing so would permit these resources to satisfy a defined portion (e.g., 25%) of Class I requirements.

NEGPA argued that material changes to the RPS's Class I definition undermines regulatory certainty, has a chilling effect on potential for private investment in new energy efficiencies and jobs, and "effectively kills attempts to create incentives for new local, Class I resources." NEGPA argued that out-of-region large-scale hydro projects should not be included as Class I RPS resources.

Covanta recommended including Energy-from-Waste facilities as Class I RPS resources. Covanta stated that given the need for huge investments in transmission line infrastructure and the lack of support for in-state jobs, the proposal to use out-of-region resources (e.g., large-hydro projects) should be replaced with the option of making Energy-from-Waste a Class I renewable for RPS. Covanta believes that the current state policies have continued to disadvantage Energy-from-Waste facilities by incentivizing landfills, which it characterized as an "inferior technology." Covanta is critical of the fact that RPS places landfill gas recovery systems in Class I, while Energy-from-Waste facilities are relegated to Class II.

Covanta noted that moving Energy-from-Waste from Class II to Class I would allow such facilities, a total of six in Connecticut, to maintain their viability as they transition off their expiring long-term PURPA power contracts into today's markets. According to Covanta, such a move would: (a) help solve the shortage of Class I renewable energy credits (RECs); (b) avoid increases in generation costs; (c) support in-state jobs; (d) lower the state's reliance of fossil fuels; (e) mitigate GHG emissions; (f) operate 24 hours per day, 365 days per year; and (g) avoid need for costly transmission line upgrades.

RELIABILITY, SECURITY AND MICROGRIDS

EES urged DEEP to consider and incorporate reliability and security concerns in this sector as well as all other sectors. (EES's recommendations and comments relative to reliability and security are provided in more detail in the Section for Non-Sector-Specific Comments, below.)

The OCC stated its concern that an overreliance on natural gas as an abundant, reliable, and cost-effective resource, without addressing current system constraints, could compromise reliability. Moreover, the OCC expressed that energy security may be impacted by a lack of fuel diversity if Connecticut overly depends on natural gas. In the short to intermediate term IMC recommended that priority be placed on electric energy reliability and security concerns, over increased supply. PURA stated that increased demand for natural gas would potentially have greater impact on availability, electric reliability and the natural gas price.

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Currently, CL&P’s proposed Interstate Reliability transmission project is the subject of an ISO-NE needs analysis. The OCC recommended that forecasts in this sector should track that project.

When energy or capacity deficiency beyond what is signaled in regional marketplace is identified, NEGPA advised that markets must first be ensured to be producing accurate outcomes to best support supply needs. Otherwise, NEGPA stated that the use of competitive procurement is critical to providing the best options for desired resources at the lowest costs.

C3CO proposed that in-state green distributed generation (DG) resources should be promoted to support energy security and to encourage the development of microgrids as an offset to the Class I RPS requirement. Kimberly-Clark stated that the use of existing Class III CHP resources to support micro-grid development would be of benefit to Connecticut. In Kimberly-Clark’s view, doing so would enhance system reliability and likely minimize the potential costs and delays related to siting, interconnections and permitting requirements, among other things.

When selecting locations for microgrids, UTC Power suggested that grid reliability issues be given consideration.

CFE gave its support to the further study of smart-grid technology in city centers, as well as the use of energy improvement districts as a mechanism to support microgrids.

RATEPAYER COST COMPONENTS

NRG recommended that the CES establish effective analysis and analytical tools in order to critically analyze full cost over time of delivered electric resources in Connecticut (i.e., electric rates, overall economic impacts). In addition, NRG suggested that the CES address the growing burden of new transmission on consumers. NRG expressed concern that proposed transmission projects may result in greater costs for Connecticut consumers than the IRP anticipated. Moreover, according to NRG, these projects may have higher overall costs in comparison to a locally-sited generation alternative, which would maintain and increase Connecticut’s manufacturing workforce and enhance its economy and the reliability of the local grid.

NEGPA proposed that Connecticut add a “public policy” ratepayer cost component (in addition to the generation, transmission and distribution cost components) when analyzing ratepayer costs. The public policy cost component would include such items as the C&LM charge, the renewable energy investment charge, the system benefits charge and the stranded cost component. In NEGPA’s view, doing so would allow for transparency and a more complete understanding of the drivers behind Connecticut’s electric costs and the impact of public policy choices on electric rates in Connecticut. Also, NRG noted that the IRP only analyzes over time the rate trends of the Generation Service Charge (GSC). NRG argued that

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limiting the IRP's rates outlook to just the Generation Service Charge would not demonstrate the likely increases in non-GSC cost components that would result from energy efficiency program expansion.

C3CO noted that, since increases in Connecticut's RPS targets are expected to outpace renewable resource development, the state's ratepayers are projected to experience rate increases from Alternative Compliance Payments in the near future.

RETAIL PROVIDERS

RESA stated that DEEP should establish a paradigm that allows for a more efficient market structure wherein the competitive retail providers concentrate on providing market-based generation supply options, while the EDCs concentrate on providing reliable and cost effective transmission and distribution services. To this end, RESA believes the CES needs to recognize and account for the role of the competitive market. In its view, the CES should provide the competitive market the opportunity to offer solutions before regulatory programs are created. RESA argued that regulatory programs impose greater ratepayer costs and can create unintended barriers to high value competitive offerings. Furthermore, RESA believes that the CES should evaluate certain retail market enhancements, namely, improved/timely access to customer data, enhanced customer choice parity, and alternate billing arrangements.

OTHER ELECTRICITY SECTOR COMMENTS

The OCC stated that the scope should include a listing of all current and near-future programs/initiatives being funded by ratepayers. CL&P and Yankee Gas recommended that program initiatives that result from this sector be consistently applied in the long-term and be maintained to remain attractive to investment.

CL&P and Yankee Gas also noted that certain federal subsidies are scheduled to expire over the next two years (e.g., Investment Tax Credit, Production Tax Credit). They believe it is important for these federal subsidies to continue.

RESA believes that the CES should address the role that smart meters can play in shaping customer behavior. In RESA's view, the CES should set forth the policy guidelines regarding the deployment and use of smart metering infrastructure, and provide recommendations for administrative actions to implement the identified policies, objectives and strategies.

CGA believes that geothermal should be recognized as a renewable energy source by the State of Connecticut, CEEF and the electric distribution companies (EDCs).

DEEP RESPONSE

The scope of the Electricity Chapter of the CES touches on all of the issues raised by stakeholders including: regional policy approach; infrastructure development; procurement; Connecticut's RPS; reliability, security and microgrids; ratepayer cost components; and retail providers. DEEP will also be initiating an RPS Study as discussed in the Electricity Chapter and many of the comments and issues raised with respect to the future of RPS will be addressed as part of the public review and comment period for the RPS study. As part of the CES public review and comment process, DEEP will provide more detailed responses to comments raised by stakeholders that are not specific to the overall scope of the CES.

BUILDINGS SECTOR

The written comments for the Efficiency sector largely focused on the scope, energy efficiency, boiler/furnace upgrades, and clarification requests resulting from the Buildings sector presentation at the second stakeholder meeting.

SCOPE

The OCC believes that the discussion in the Buildings sector should be framed by cost considerations and funding sources.

During the second stakeholder meeting, DEEP offered a preliminary analysis that natural gas cannot ultimately meet Connecticut's mandatory carbon pollution reduction targets. Therefore, ENE believes that consideration should be given over the long term to both natural gas and electricity as energy carriers to heat and cool high efficiency buildings of the future.

In the OCC's view, the issue of sub-metering should be considered in this sector. To this end, the OCC suggested that DEEP review current regulations in Connecticut and perform a thorough study of sub-metering. Both the review and the study should identify obstacles and best practices met in other states. PURA noted that it investigated and analyzed many complex issues and problems related to allowing natural sub-metering, but ultimately its 2007 decision in Docket No. 06-09-01 did not result in doing so. PURA added that it intends future review of this topic.

ENERGY EFFICIENCY (EE)

CFE recommended that policies should be implemented to require measurement and disclosure of a building's energy performance information in order to motivate investment. CFE added that the resulting data should be incorporated into that building's valuation. The OCC believes that energy efficient building codes and standards for renovations and new construction should be created. ENE proposed

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that Connecticut consider and evaluate the following complementary policy options: (a) building labeling and time-of-sale disclosure; (b) state or regional appliance/equipment standards; (c) more stringent building codes; (d) minimum efficiency standards for rental housing; (e) utility decoupling (required by law but not yet fully implemented); and (f) water efficiency measures.

The OCC further recommended that current EE programs be analyzed to identify successes and best practices. ENE disagreed. ENE believes that the CES is not the appropriate venue for an analysis of existing EE programs since they are already reviewed annually by PURA. ENE expressed that the CES could instead identify the areas of potential efficiency not currently covered by existing EE programs. Likewise, the OCC commented that new and proposed EE programs should be identified and considered. ENE suggested that the CES focus on an analysis of potential efficiency investment levels for natural gas and oil programs and corresponding benefits.

ENE stated that the CES should ensure an accounting of all existing building-related EE programs already being implemented in Connecticut, as any omissions or undercounting in the process of developing this sector's baseline will affect the accuracy of DEEP's energy savings projections.

CFE urged Connecticut to encourage greater EE penetration in its large stock of aging, energy-wasting buildings. The OCC recommended the use of the Lead by Example program relative to the renovation of existing buildings.

To fund expanded EE, CL&P believes that DEEP should consider recommending the use of a cost adjustment mechanism (CAM) with lost revenue recovery for all EE expenditures, consistent with the recovery model currently approved for the local distribution companies (LDCs), until such time as a decoupling mechanism is made available. Also, CL&P believes that multiple-year budgets should be used to sustain activity over the long term and to avoid cyclical funding that creates staffing and product availability problems for the EE market and delivery infrastructure.

ENE strongly supports expanding the EE scenario for the Buildings sector, thereby placing importance on its approval and full implementation, as proposed in the IRP and the pending CL&M Plan. To help clarify the policy necessity of pursuing an expanded EE scenario, ENE stated that macroeconomic benefits for this sector should be addressed in a robust manner.

ENE stated that the analysis of residential buildings should not overly focus on detached single-family homes and should include water efficiency. Also, ENE suggested that any analysis of future residential and commercial buildings should consider future energy consumption as impacted by the types and sizes of future buildings. Additionally, ENE claimed that air source heat pumps have potential for more widespread use than ground source heat pumps, and should be included in any fuel efficiency analysis.

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The OCC stated that EE program resources should be publicly available and user-friendly; a “one-stop-shop” approach should be considered. Relative to customer behavior, ENE recommended that any analysis concerning the extent and impact of changes should be realistic.

BOILER/FURNACE UPGRADES

The LDCs also believe that boiler/furnace upgrades will reduce the payback from efficiency gains, not increase it (as noted in the Buildings sector presentation). The LDCs proposed a more comprehensive analysis of a status quo scenario involving a building using fuel oil with low efficiency equipment, as compared to a new scenario wherein the same building has switched to a high efficiency gas boiler/furnace. The LDCs think that a conversion combined with additional EE represents a great opportunity, but one that is enabled by the conversion and not the other way around.

Of the challenges noted in the presentation, the LDCs believe two are overstated. Firstly, the LDCs think that the issue of failing heating systems is not about whether the equipment is gas-powered or fuel oil-powered. Rather, it is more reflective of whether the given equipment is old or new, or it is properly or not properly maintained. Secondly, relative to the fact that a conversion may take several weeks to complete, the LDCs argued that that fact neither really impacts the overall economics of the conversion nor the final savings realized by the customer.

CLARIFICATION REQUESTS

A few comments requested clarification on certain projections, calculations or assumptions revealed during the Efficiency sector presentation at the second stakeholder meeting. Relative to Slide number 3 of the Buildings sector presentation, CL&P asks if the energy consumption projections contained therein include the impacts of CHP as contemplated in the Industry sector presentation. CL&P also asked what specific measures would need to be undertaken to drop from 101 to 18 trillion BTU of oil consumption by 2050, since it is unclear how this amount can be achieved through energy efficiency. Moreover, CL&P questioned whether the use of geothermal heat pumps is considered part of the fuel switching strategy.

ENE sought more detail on how DEEP calculated the 49% energy savings estimate and the \$27B net savings estimate it claimed.

CFE wants to know of the underlying assumptions between the “No Energy Efficiency” and the business-as-usual heating scenarios. CFE did not understand why the estimated consumption of both heating oil and natural gas are the same in both cases.

CL&P asked how Slide number 12 addressed fuel switching; CL&P wondered if the natural gas savings depicted in Slide number 12 contains savings for switching from inefficient oil equipment to highly efficient gas equipment.

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CNG, SCG and Yankee Gas (together, the LDCs), believe that the projection of a 20% EE improvement and 25% heating load reduction is high. The LDCs stated their preference for a point that is in the mid-range of energy efficiency improvement estimates.

DEEP RESPONSE

The scope of the Buildings Chapter, now entitled the “Energy Efficiency Chapter,” includes topics raised by stakeholders including: sub-metering and oil efficiency. In response to stakeholder comments on technical clarifications, DEEP will address stakeholder comments as part of the technical meeting on the Energy Efficiency Chapter.

INDUSTRY SECTOR

The written comments for the Industry sector largely dealt with certain issues and concerns relating to combined heat and power (CHP) resources and EE programs.

CHP RESOURCES

Given that CHP has been a successful approach for lowering emissions and energy costs, ENE supports the strong CHP focus in this sector, as well as the goal of increasing the amount of cost-effective CHP potential that is captured. ENE expressed that a valuable planning tool would be an accurate analysis of the potential for additional CHP development in Connecticut. According to ENE, the analysis should include a range of sizes of CHP systems and should involve an assessment of potential costs and benefits. That assessment should not be limited to the industrial segment and should identify specific sites that have high thermal loads, thereby resulting in high overall CHP efficiencies.

Kimberly-Clark believes that in order for Connecticut to maintain its leadership role in CHP policy, it is critical that the CES address the long-term needs of Class III CHP resources. The CES should be developed to be consistent with the policy goals underlying Connecticut’s Class III program, including the intended provision of stable revenue stream for the ongoing operating costs of Class III CHP resources. Kimberly-Clark cautions that failure to do so would not only thwart the Class III program policy, but jeopardize the overall competitiveness of Connecticut’s CHP policies.

UTC Power commented on the development of CHP-specific programs to be administered by CEFIA and DEEP, as required by PA 11-80. UTC Power noted that there are Class I renewable resources that allow for CHP operation, such as in-state manufactured fuel cell systems. UTC Power expressed that the scope of these programs or the installed megawatt capacity should not be limited to traditional CHP technologies to the exclusion of other technologies outlined in the Industry Sector presentation.

CL&P sought clarification on Slides number 4 and number 11 of the Industry sector presentation. Regarding Slide number 4, CL&P asked if the electricity use by sector includes electricity used by CHP

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units already in operation. If it is, CL&P questioned whether the natural gas use already takes this energy consumption into account. CL&P also noted that Slide number 4 indicated that process loads represent 59% of electric consumption, and Slide number 11 projected that a 60% reduction in electric use can be achieved by 2050. CL&P asked if this reduction assumes displacement of electric use by CHP units. Lastly, CL&P clarified that Connecticut's 8th place ranking is for its EE programs *and policies*, not just its EE programs.

ENERGY EFFICIENCY PROGRAMS

The OCC noted that it would be advantageous for industrial customers to avail themselves of the expanded EE programs offered by Connecticut's EDCs and LDCs through the Energy Efficiency Board (EEB). In the OCC's view, EE programs that provide low or no interest loans are better and more sustainable than grant programs. The OCC also indicated that correctly designed loan programs would become self-sufficient with minimal new funding requirements after the initial 3-5 year investment period. The OCC recommended that this sector consider initiatives that could benefit smaller and medium-sized businesses, since there is a fine line between the commercial customer sector and the industrial customer sector.

ENE stated that the distribution of current industrial EE programs was inaccurately presented in the sector presentation, since the two evaluations (cited as the source of figures) measure savings of both commercial and industrial sectors combined, rather than just the industrial sector. Since electric use in Connecticut's commercial sector is nearly four times that of industrial, any combined data is likely to be more representative of the commercial sector.

Kimberly-Clark is concerned that implementation of the proposed expansion of EE measures would further deepen the existing Class III imbalance, with the likely possibility of Class III CHP resources not finding any willing buyers for their RECs. Therefore, Kimberly-Clark advocated for the EE expansion's implementation to be designed to avoid any unintended, adverse consequences on Connecticut's already saturated Class III market and the further development and retention of in-state Class III CHP resources.

CBIA expressed an interest in further reduction of barriers for further business investment in EE measures and clean energy.

OTHER INDUSTRY SECTOR COMMENTS

The OCC commented that ratepayers should not be viewed as a source of funding brownfield revitalization, increasing alternative fuel availability, and minimizing industrial GHG emissions.

ENE noted that Slide number 3 of the Industry sector presentation projected industrial oil consumption to grow over time. ENE requested the CES justify that projection, which ENE viewed to be highly unlikely.

DEEP RESPONSE

In response to comments raised by stakeholders, the scope of the Industry Chapter deals largely with opportunities for further tailoring efficiency programs and highlights additional in-state opportunities for CHP. Issues related to Class III resources will be considered as part of the RPS study and through the public process for that study.

TRANSPORTATION SECTOR

The written comments for the Transportation sector concentrated on: scope; the potential to reduce vehicle miles traveled (VMT); the potential for and concerns about alternative fuel vehicles; infrastructure investment; and issues concerning fleets, public rail transit and ground freight.

SCOPE

CL&P and Yankee Gas noted that transportation is the largest source of foreign oil dependency. For that reason, CL&P and Yankee Gas recommended that transportation be a top priority for reform given economic, environmental and national security concerns. DEEP received suggestions from several stakeholders for consideration in developing Connecticut's energy strategy in this sector.

CFE suggested that DEEP look at the potential to establish a comprehensive approach to transportation and land use planning that would incorporate smart growth principles, transit-oriented development, and expanded mass transit opportunities to break dependency on single-occupancy motor vehicle use. The OCC recommended consideration of cost and finance relative to technology and alternative fuels (e.g., the best business models for distribution, supply and fueling infrastructures; ownership and financing of alternative fuel infrastructures; providers of alternative fuels; fuel provision as a self-sustaining business). The OCC added that the discussion in this sector should also consider fuel diversity and impact of heavy reliance on any particular alternative fuel. IMC offered that this sector should consider expanding the communication infrastructure as an alternative to energy-intensive and time-intensive transportation.

ENE requested that DEEP assess whether Connecticut is currently maximizing possibilities for creating transportation policy change on a regional basis, rather than on just a statewide basis.

Furthermore, ENE recommended that DEEP assess the potential to achieve energy savings through innovative new State efforts that adopt lessons learned in other states from successful smart growth, land use and public transit programs. ENE stated that the CES should analyze a regional low carbon fuel standard as a policy option.

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GNHCCC noted that today's family is paying more for transportation energy than home energy, and fuel cost is second only to personnel costs, as the biggest expense for fleets . GNHCCC recommended that guiding principles and priorities be determined at the state level, and that priorities and justification of alternative fuels should be ranked to ensure state objectives are met. GNHCCC noted that its top three priorities are: (1) return on investment; (2) reduction of toxic mobile source emissions; and (3) reduction in the use of foreign fuels.) In GNHCCC's view, the development process of the CES's Transportation sector should engage the industry and those organizations and individuals with practical experience in the areas of transportation energy and alternative fuels.

GNHCCC also suggested that Connecticut should consider legislation and resources that would enforce current anti-idling regulations and laws. GNHCCC further pointed out that Connecticut lacks state educational institutes, especially at the community college level, that provide nationally recognized certifications for many technical positions (especially for emerging technologies related to alternative fuels and vehicles) at manufacturing companies. GNHCCC suggested that this may be an area where unions can have an impact through their apprentice programs.

Lastly, GNHCCC noted that the prior State Energy Plan contained very little about transportation energy. GNHCCC stressed that with volatile energy costs triggered by unrest in the Middle East and increased growth in third world economies, all energy budgets (both transportation and stationary) will continue to affect future business growth planning and projections.

VMT REDUCTION

As a prerequisite to suggested short-term strategy, IMC asks that current commuting patterns be studied. IMC added that short-term strategy should include increasing public rail transit to better leverage rail infrastructure and to reduce VMT.

In ENE's view, any analysis of VMT reduction potential should include potential additional economic development benefits of compact development and transit in terms of interstate competition for employees and employers. ENE added that the list of VMT reduction options for analysis should include a wider range of pricing strategies. CFE is concerned that there are not more specific VMT reduction targets or policies to achieve the targets beyond those that are already in the pipeline. CFE believes that one area of focus should be on developing methods to encourage greater regional and countrywide cooperation in the development of sustainable land-use patterns.

ALTERNATIVE FUEL VEHICLES

CL&P and Yankee Gas stated that the use of electric vehicles (EVs) and/or natural gas vehicles (NGVs) in Connecticut will result in customer savings. Significant use of EVs can substantially reduce carbon emissions from transportation in the Northeast. Additionally, electric and natural gas transportation hold

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significant long-term potential to improve the environment and lessen foreign fuel dependence. Properly incented charging can minimize impacts on electric distribution systems and may help lower rates through better system utilization. CL&P supports consideration of policies and approaches that are geared to minimizing fuel and infrastructure cost, and maximize convenience for plug-in EVs.

GNHCCC expressed that Connecticut should be mindful of the several variations of EVs (i.e., plug-in hybrids, battery electric models and the Chevrolet Volt), and the recent growth of Electric Vehicle Supply Equipment (EVSE) and technological advances associated with EVSE. GNHCCC suggested that Connecticut should evaluate the lessons learned by western states that received large grants to install their EVSEs.

UTC Power asserted that vehicles powered by fuel cell technology would offer longer travel distances between refueling than EVs. GNHCCC noted that fuel cell technology has made large strides over recent years (e.g., fuel cell stack life is increasing and a total of four hydrogen fueling stations will be in operation by the end of 2012). According to GNHCCC, economic feasibility is within reach, but is yet to be attained. GNHCCC suggested that the hydrogen-powered bus is the best way to research and explore hydrogen as a commercially viable transportation fuel.

In ENE's view, any analysis of alternative fuel vehicles must go beyond simple economic lifetime costs. ENE stated that the potential for uptake of alternative fuels and their associated technologies should be based on realistic trends and past experiences. The OCC recommended that the consideration of alternate fuel vehicles for the CES involve a study of past state experiences with NGVs and lessons learned. Additionally, ENE advocated for analytical treatment of the low adoption rates for EVs and consideration of policies that might remedy this. Furthermore, ENE recommended that the CES consider how a large increase in NGVs or EVs might impact other sectors and the electric infrastructure.

GNHCCC reported that propane has greatly improved as a transportation fuel in the last decade. Propane ranks below natural gas in emission reduction, but has more energy density and is under relatively low pressure. GNHCCC believes that propane has the potential to be on the same price level as natural gas, depending on the suppliers.

GNHCCC also sought consideration of biodiesel. According to GNHCCC, biodiesel is a true renewable transportation fuel and can be dispensed from a traditional diesel fueling facility. It is expected to become more competitive by 2013, especially if some of the incentives for biodiesel are reinstated. GNHCCC stated that while biodiesel has 10% less energy than diesel fuel, that fact becomes insignificant at the B-20 blend level. Moreover, biodiesel use results in reduced emissions overall and zero NOx emissions.

Lastly, GNHCCC pointed out that the claim that ethanol has a negative energy balance is not true. According to GNHCCC the U.S. Department of Agriculture (USDA) and the U.S. Department of Energy

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(DOE) Argonne Lab both found that ethanol has a positive energy balance of 1.9 to 2.3, with potential of 2.8 under certain practices in current production facilities.

INFRASTRUCTURE INVESTMENT

PURA envisions that significant capital investment in infrastructure and associated facilities would be required to make natural gas a viable transportation fuel source. PURA is concerned that natural gas infrastructure investment would pose significant risk to the LDCs and would likely end up being subsidized by ratepayers through higher rates. PURA believes that investments in developing NGV fueling stations (and associated risks) should instead be borne by the LDCs' shareholders. For its part, Yankee Gas stated that it would continue to work toward deploying proper natural gas infrastructure to support the increased penetration of NGVs.

UTC Power noted that building the hydrogen infrastructure in Connecticut to support fuel cell vehicles would help create jobs.

According to GNHCCC, in the last two years EVSE infrastructure grants and pilot programs have focused on Level 2 EV charging. However, as GNHCCC noted, a groundswell of stakeholders are openly promoting Level 1 EV charging under certain conditions, which is in line with concerns that the utilities have in keeping grid demand down. GNHCCC stated that Level 2 charging is less attractive in lots with short parking periods due to the length of time needed to fully recharge, and that Level 1 charging is more justifiable for commuter parking areas.

GNHCCC expressed that the main advantage of propane as a transportation fuel is that the infrastructure can be provided free on site to fleets that want to convert to propane. According to GNHCCC, propane fuel dealers will install infrastructure based on fuel usage, which is possible due to the absence of high pressure storage vessels and compressors.

FLEETS, PUBLIC RAIL TRANSIT, GROUND FREIGHT AND OUTREACH

In IMC's opinion, the intermediate to long-term focus in the Transportation sector should concentrate on enhancing public transit opportunities around regional centers and maintaining existing rail and highway corridor links.

UTC Power emphasized that EVs would introduce additional demand to the electric grid. Accordingly, UTC Power recommended that a demand should be demonstrated before Connecticut elects to support this type of technology for fleet and light duty vehicles on a large scale. Also, UTC Power believes that extensive deliberation needs to occur to determine which alternative fuel technologies should be funded, implemented, and deployed for fleet vehicles. ENE voiced its desire for the CES to be more explicit on the technical potential for natural gas-powered fleet vehicles.

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UTC Power submitted that the wide scale deployment of zero emission fuel cell buses in Connecticut would create in-state jobs while reducing total fleet emissions.

ENE recommended that any analysis of ground freight initiatives should consider mode switching to rail and water, consider additional infrastructure needs and identify areas needing regional coordination.

GNHCCC urged Connecticut to be as aggressive in outreach activities for cleaner transportation energy as it is currently in activities to reduce emissions from power plants and other non-transportation sector pollution emitters.

DEEP RESPONSE

The Transportation Chapter covers all of the topics raised by stakeholders including: the potential to reduce VMT; the potential for and concerns about alternative fuel vehicles; infrastructure investment; and issues concerning fleets, public rail transit and ground freight.

NATURAL GAS SECTOR

Most of the written comments for the Natural Gas sector focused on issues and concerns about the increased reliance on natural gas, infrastructure expansion, price projections, and natural gas retail choice. Other comments were received concerning microgrids, the regional pipelines, liquefied natural gas (LNG) imports, the hurdle rate and Contribution in Aid of Construction CIAC policies, capacity release and storage, cost-benefit analyses, and suggested research sources for use in this sector's analysis.

INCREASED NATURAL GAS RELIANCE

CFE believes that in the short term Connecticut and the region will need a transitional strategy from fossil fuels to renewables. Due to natural gas' current price advantage and lower emissions over other fossil fuels, CFE accepts that natural gas can play a role in that transition. Indeed, the LDCs have professed that the lower cost of natural gas production, coupled with the expanded use of natural gas in lieu of alternative fuels, provides benefits in terms of economic growth and cost. Algonquin and Spectra believe that natural gas will be available for power generation and other uses over the long-term.

However, CFE, IMC, the OCC, PURA and the Sierra Club expressed concerns about placing increasing reliance on natural gas in the long-term. CFE believes that Connecticut should be cautious about committing to long-term overreliance on natural gas. IMC recommended that DEEP assume the current depressed natural gas price is a transitory phenomenon. In IMC's view, natural gas' price advantage is likely to end in the short-term as prices escalate and infrastructure expands to take advantage of the currently low natural gas price. The OCC warned that overreliance on natural gas as "abundant, reliable, and cost-effective," without addressing current system constraints, could compromise reliability.

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Similarly, PURA believes that the increased demand in natural gas resources has the potential to have a greater impact on availability, electric reliability and the natural gas price.

The Sierra Club commented that the benefits associated with greater reliance on NG are questionable. Like CFE, the Sierra Club feels that natural gas should be relied upon as a transition fuel and not as a long-term solution to Connecticut's energy needs. The Sierra Club expressed that the conditions that currently produce low natural gas prices are likely to change in the future and result in rising gas prices. Should DEEP pursue increased natural gas reliance (particularly in the Electricity sector), the Sierra Club urged DEEP to ensure that this gas generation is counterbalanced by significant new renewable generation. According to the Sierra Club, new renewable generation can help offset risks associated with rising natural gas prices by diversifying Connecticut's fuel mix and providing predictable power prices for Connecticut's ratepayers.

NATURAL GAS INFRASTRUCTURE EXPANSION

CL&P, Yankee Gas, CNG, SCG, ENE, the Sierra Club, CFE, the OCC, PURA, Algonquin and Spectra provided their viewpoints on the benefits, planning process concerns, and cost impacts engendered by the proposed expansion of the natural gas infrastructure.

CL&P, Yankee Gas, Spectra, the LDCs (CNG, SCG and Yankee, jointly), Algonquin and Spectra touted the many benefits that investment in expanding the natural gas infrastructure would bring to Connecticut's residents. CL&P and Yankee Gas jointly asserted that natural gas investment would lower customer costs, address space heating concerns, drive reduction in petroleum usage in a relatively short time frame, leverage a growing source of indigenous fuel, increase the competitiveness of Connecticut's businesses, and add long-term productivity to the Connecticut economy. The LDCs recommended that DEEP should consider certain policy goals that will help expand the availability and deliverability of natural gas in Connecticut. The LDCs stated that doing so would stimulate short-term job creation, reduce ratepayer costs and GHG emissions, and achieve greater energy independence. Moreover, the LDCs believe that additional heating opportunities should be considered separately as an added benefit of the natural gas system expansion. According to the LDCs' analyses, natural gas penetration at 50% for residential customers and 75% for commercial and industrial customers would lead to a 0.9 MMT carbon emission reduction.

Algonquin and Spectra believe that a model of coordinated energy supply for residential, commercial, and industrial consumption of natural gas and gas-fired electric generation should be the foundation in the CES. They claimed that new pipeline infrastructure would: (1) provide diversity, reliability and system integrity; (2) provide access to new supply sources, increase competition and provide new purchase options that yield significant cost savings; (3) ensure reliable, flexible, reasonably priced supply; (4) support the increasing role of natural gas as part of the solution to CT's economic development, energy

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security and environmental policy objectives; (5) provide opportunities such as alternative fuel development, such as for a natural gas vehicle fleet; (6) help meet fundamental goals of lower cost/more reliable energy; and (7) support Connecticut’s policy objectives regarding GHG reductions. According to Algonquin and Spectra, while natural gas provides lower cost and reduced volatility, it only does so where customers have access to the supply. In New England, this requires new infrastructure, particularly during peak demand periods. Algonquin and Spectra stated that pipeline companies won’t build, nor will FERC approve projects, based on the assumption that there will be a future market for transportation or storage services. Capital investments in pipeline infrastructure must be supported by market demand and revenue from firm service agreements. Algonquin and Spectra noted that LDCs generally support an infrastructure build-out because they are protected from the market area price swings that are symptomatic of a lack of pipeline infrastructure. The LDCs will benefit from minimized pipeline demand charges by subscribing to capacity that expands the Algonquin Gas Transmission and allows incremental access to natural gas supplies.

ENE stated that an analysis of Connecticut’s current natural gas distribution network and potential for expansion would be appropriate and useful for long-term energy planning. ENE believes that Connecticut should move carefully on any natural gas expansion because: (a) there is significant uncertainty on the supply and demand sides, including the potential for increasing exports and higher prices; and (b) the federal and state regulatory framework around shale gas is evolving rapidly and could limit natural gas domestic production, or increase prices more than currently projected. ENE added that natural gas expansion should be incremental, cost-effective, and focused on near-term actions. Furthermore, ENE stated that policy options for the problem of heating system “replace on failure” should not be focused only on natural gas expansion and should extend to high-efficiency equipment when no fuel switching is involved.

CL&P and Yankee Gas believe that Connecticut should direct the LDCs to develop a collaborative 5-year plan to provide a gas service option to every Connecticut residence.

For the CES, the LDCs expressed that the analysis of off-main expansion projects should be adjusted in two principal ways. First, the analysis’s timeframe should be expanded since a gas main can last as long as 75 years. Second, the analysis should take into account the additional economic benefits (e.g., the number of construction jobs) that were identified in the REMI Study.

PURA stated that the potential to convert existing non-heating customers to heating customers should be explored prior to significant system expansions. CFE concurred that natural gas infrastructure expansion should occur in two key phases, one for on-main customers and another for economically attractive off-main customers. These infrastructure expansion phases should occur in conjunction with an aggressive heating efficiency program and the deployment of renewable heating resources.

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In addition, PURA suggested that DEEP consider past Department of Public Utility Control (DPUC) Decisions and records involving natural gas system expansions. PURA noted that incremental capacity is currently unavailable, as Algonquin’s AIM project will not be in-service until November 2015 at the earliest. Lastly, PURA stated that recent additions of large gas-fired electric generation facilities and DG units have significantly increased natural gas demand, which further limits primary firm capacity and may impact natural gas price.

ENE urged Connecticut to consider the impact of increased natural gas use in other sectors to ensure that any potential cost or emission savings are not offset by increases of cost or emissions in the electricity or transportation sectors. ENE recommended that the cost-effectiveness (and emissions) of larger investments (i.e., substantial additions in gas main or pipeline) be compared to a range of available alternatives (i.e., efficiency, electric heat pumps, solar), and that the cost-effectiveness of these options be evaluated using a wide range of natural gas prices.

The OCC expressed that natural gas infrastructure expansion must be done in an economic manner to not burden existing gas ratepayers. The OCC suggested that DEEP and/or PURA should review current alternatives that balance the needs of infrastructure investment and the rate impact on existing natural gas customers.

Algonquin and Spectra stated that demand growth highlights the need for additional pipeline infrastructure. They pointed out that the U.S. Energy Information Administration (EIA) has projected an increase in demand growth, with the LDCs representing ~26% of projected incremental design day demand growth by 2021. In New England, cost savings could be in the hundreds of millions annually (\$240M - \$310M). With an annual cost of expansion of \$100M to \$150M, the pipeline infrastructure would pay for itself. Algonquin and Spectra noted that they have proven track records of building infrastructure in timely, market-responsive manners, and are planning on attaching significant additional volumes of new natural gas supplies to their Northeast pipeline systems.

PRICE PROJECTIONS

Relative to projected natural gas prices, the LDCs emphasized that the important element is not the future price of natural gas, per se, but rather the differential between natural gas and oil. The LDCs suggested that DEEP strengthen its analysis on natural gas projections by including other well-established price forecasts beyond that of the EIA.

According to ENE, the natural gas price projections used in the Natural Gas sector presentation conflicted to some extent with those used in the Electricity sector presentation. ENE recommended that DEEP rely on the price projection used in Electricity sector presentation. In ENE’s view, for long-range policy planning, it is preferable to use natural gas price projections with upper and lower confidence bounds to more accurately reflect pricing uncertainty and potential volatility.

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Furthermore, ENE believes that the CES should include a cost-benefit analysis that encompasses low, medium and high natural gas price scenarios for the different sectorial uses of natural gas. According to ENE, this would help identify the lowest risk, most cost-effective policy options for natural gas in Connecticut.

NATURAL GAS RETAIL CHOICE

PURA thinks that any consideration of natural gas unbundling must resolve the numerous complex issues and concerns engendered by such action. PURA believes that natural gas unbundling necessitates the development of codes of conduct. In PURA's view, these codes of conduct should establish the standards governing the relationship between the LDCs and the marketer affiliates, as well as the standards for educating and protecting customers. If residential natural gas unbundling is contemplated, PURA recommended that it ease the transition for Connecticut customers by implementing a pilot program and a phase-in of the availability of unbundled service.

DES, Dominion and Energy Plus jointly believe that a competitive natural gas retail market can enhance the CES' goals by allowing contracting for capacity, in addition to capacity commitments made by the LDCs as the pipelines conduct their open seasons. This would ultimately bring more natural gas into Connecticut.

RESA recommended that the CES require an evaluation of natural gas retail choice for residential customers in Connecticut. DES, Dominion and Energy Plus jointly urged Connecticut to develop a natural gas retail choice program to complement its electric supply choice program. DES, Dominion and Energy Plus envisioned that this would allow marketers to integrate an all-fuels option for the benefit of energy consumers. Moreover, DES, Dominion and Energy Plus believe that in areas where marketers can offer both supply commodities, electric customers who have migrated to competitive electric supply would be more interested in bundling their electric service with natural gas service.

DES, Dominion, and Energy Plus jointly advocated for Connecticut to design an efficient and effective residential natural gas supply choice program that would attract retail marketers to adequately service residential customers and yield value and benefits (i.e., savings, alternative pricing, new products). DES, Dominion and Energy Plus suggested that Connecticut draw upon experience and program design elements in other states such as New York, New Jersey and Massachusetts, which have statewide programs with varying degrees of success.

MICROGRIDS

UTC Power urged Connecticut to strongly consider the relationship between the expansion of the natural gas infrastructure and the deployment of microgrids. UTC Power pointed out that a majority of the low-emission technologies in the Class I market operate using natural gas and represent likely candidates for

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microgrid construction. UTC Power suggested that the natural gas-fed DG for microgrids could be the lead load for the expansion of the natural gas infrastructure. This would also allow newly served communities to benefit economically and environmentally from the availability of natural gas as opposed to heating oil.

REGIONAL PIPELINES

PURA believes that standards should be established to protect and maintain the operational integrity of the regional pipelines and systems. The OCC stated its concern about the strict limits that the current regional pipeline infrastructure places on additional winter uses.

LNG

PURA projected that LNG imports to New England will likely be limited due to the pricing differential between the United States market versus the European and Asian markets.

HURDLE RATE/CIAC POLICIES

In the event that any proposed changes to the Hurdle Rate and CIAC policies are considered, PURA expressed that those changes should not increase cost or interject risk to existing ratepayers, and that benefits and energy policy implications should be examined.

CAPACITY RELEASE AND STORAGE

CGE, Energy Plus, and IGS jointly believe it is critical in a competitive natural gas market for capacity to be released in a competitively neutral manner. As a fundamental principle, they urged that the assets of gas pipeline and storage capacity follow the customers in each utility territory, regardless of which company the customers purchase their natural gas from. CGE, Energy Plus and IGS recommended that no utility incentives be allowed in rate design that encourages a utility-only model of capacity and storage management. Rather, incentives should be provided to the LDCs to encourage cooperation with marketers and ensure seamless supply service to customers.

NATURAL GAS COST-BENEFIT ANALYSES

ENE believes that building efficiency should become the CES base case for all natural gas cost-benefit analyses since it is more accurate and it reduces the net present value of natural gas expansion. ENE suggested that DEEP's analytical goal should be to capture the benefits of building efficiency and low-cost natural gas expansion simultaneously.

Kimberly-Clark recommended that the CES's consideration of natural gas matters include an assessment of the impact of increasing transportation costs for natural gas supply.

RESEARCH SOURCES

The LDCs believe that natural gas represents a good opportunity for Connecticut to implement short-term actions that would achieve savings and decrease its carbon footprint. The LDCs believe that natural gas expansion can help with near-term GHG reduction goals (2020), and that failure to capture them will reduce Connecticut's economic competitiveness. To help develop those short-term actions, the LDCs suggested that the CES analyses for the Natural Gas sector take into consideration: the REMI Study; the Secretary of Energy Advisory Board's final reports dated November 18, 2011 and November 18, 2011; and ongoing information from President Obama's task force.

NON-SECTOR-SPECIFIC COMMENTS

DEEP also received a host of written comments that are not necessarily sector-specific. A number of stakeholders submitted recommendations for the CES's focus and development process (i.e., GHG emission reduction as the key focus, approaches to be considered, assumptions to be used for analyses, regulatory concerns, and general recommendations regarding the EE programs). Other non-sector-specific comments received by DEEP relate to reliability and security concerns, requests to broaden Connecticut's energy market by accommodating retail providers, and adopting a Renewable Natural Gas (RNG) standard that incorporates biogas use.

CES FOCUS AND DEVELOPMENT PROCESS

Given the CES's long-term planning horizon, the Sierra Club urged Connecticut to focus on factors (e.g., climate change, existing/future regulation of GHG emissions) that will drive long-term energy prices and to develop energy strategy with attention to these drivers. In analyzing the challenges and opportunities presented by the CES, the Sierra Club believes that DEEP should maintain regional focus and actively pursue opportunities to coordinate and collaborate with other New England states. CFE stated that framing the need to reduce GHG emissions as central to the CES planning process will keep the long-term goal of transitioning to a clean, renewable energy system firmly in focus. ENE recommended that the DEEP model current and projected GHG emissions for each sector with clearly defined baselines. Those baselines should additionally reflect the existing EE policies for the given sector. ENE further suggested that the CES include a comparison of energy resources based on their life-cycle GHG emissions to provide the most accurate assessment of actual climate impact of each energy resource.

ENE expressed that the approaches recommended within and across sectors of the CES should be prioritized and weighted for appropriate consideration by policymakers. ENE added that those weighted recommendations should clearly identify and prioritize the policy actions that would result in the greatest net benefit to Connecticut. In ENE's view, the CES must include a robust cost-benefit analysis that

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monetizes all benefits (through published values or alternative compliance costs), including key environmental benefits (e.g., economic value of avoiding carbon pollution from reduced emissions).

ENE stated that the CES needs to be a holistic assessment of Connecticut's energy future that includes dynamic cross-sector analyses, especially when considering policies that could substantially increase natural gas or electric consumption. In CL&P's and Yankee Gas' joint view, responsible clean energy policy must balance four objectives (ranked in order of priority): (1) the impact to customer rates, (2) the impact on carbon emissions, (3) the impact to local economic development from new clean energy project jobs, and (4) the overall economic impact of increased rates. Given the ratepayers' existing commitments and obligations for other initiatives, the OCC advised that each sector should incorporate a full discussion of funding options.

NEGPA commented that any contracting that is part of the CES process should be done competitively.

IMC and ENE suggested a few general assumptions to take when developing the CES. IMC urged DEEP to assume progressive energy scarcity over the planning horizon and to build contingencies accordingly. Additionally, IMC advised DEEP to assume a transitional process and not presume a specific destination in Connecticut's energy profile. ENE recommended that realistic ranges for future fossil fuel prices, especially natural gas, must be used for sensitivity analysis. To enable stakeholders to better understand how DEEP arrived at its analytical conclusions, ENE requested that the draft CES report provide detailed information on the specific assumptions, data and sources actually used by DEEP in its analyses.

IMC recommended that Connecticut update relevant state regulations (i.e., energy, land use and zoning) to reflect current realities and future possibilities regarding energy policies throughout pertinent regional structures in associated communities. In addition, IMC advocated for state agencies with certain strategic management responsibilities (i.e., land use, economic development, governmental service provision, and transportation) to initiate a coordinated definition of "optimized regional structure" for Connecticut's 169 municipalities. Moreover, IMC suggested that core technical competencies be provided to facilitate planning, transition, and practice of energy policies throughout relevant regional structures in associated municipalities.

PA 11-80 requires that the CES include recommended administrative actions for implementing policies, objectives and strategies recognized therein. Therefore, RESA wants to ensure that the CES clearly identifies the regulatory actions (if any) to be taken to implement each CES component, the entity responsible for taking such further actions, how those actions will be undertaken, and the completion deadlines for those actions. PURA commented that policymakers should refrain from modifying existing standards of conduct with regulated utilities unless there is strong justification. However, in the event that such action is necessitated, great caution should be exercised. CL&P and Yankee Gas urged that the

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CES prioritize execution of regulatory mandates by PURA (e.g., decoupling, performance incentives for LDCs) to remove disincentives and to provide appropriate incentives to achieve all cost-effective EE.

ENE, C&P and Yankee Gas recommended that the CES give priority to all cost-effective EE and conservation measures. ENE contended that by giving EE top policy priority, considerable macroeconomic benefits will accrue to Connecticut and its citizens. CL&P and Yankee Gas advocated for the CES to communicate a multiyear commitment to maintaining funding for all cost-effective EE programs. CL&P and Yankee Gas also proposed that the CES mandate that all future CL&M plans be developed as joint electric, natural gas and deliverable fuel plans. Moreover, for jurisdictions where waste treatment savings could be obtained, CL&P and Yankee Gas suggested that the CES recommend the expanded use of water-saving measures as a part of EE programs.

RESA commented that DEEP should ensure that interested stakeholders have an opportunity to provide meaningful input before particular actions are prescribed that may not be technically feasible or may unnecessarily increase costs.

BROADENING CONNECTICUT'S ENERGY MARKET

RESA recommended that the CES contain an evaluation of solutions that would provide regulatory fairness and consistency, reduce non-bypassable programs, enhance retail electric market programs, and institute retail natural gas choice for residential customers.

Element Markets requested consideration of adopting a broader RNG standard for Connecticut to bring the benefits of biogas to each CES sector. Element Markets contended that an RNG standard would: (a) integrate the individual CES components into a comprehensive renewables program; (b) provide opportunity for systematic evaluation and development of in-state biogas resources for optimal use; and (c) promote development of Connecticut's natural gas infrastructure by delivering multiple environmental benefits without requiring any unique modifications to accommodate this renewable fuel.

CGE, Energy Plus and IGS noted that energy competition among residential and C&I consumers is a critical trend that has been gaining momentum in many states over the past 10-15 years. They view energy competition as being important to long-term energy strategy, primarily because it gives consumers control over decisions that affect them, provides accurate and market-based prices information, and doesn't decrease system reliability. As energy choices emerge, consumers would need access to information to help them understand the implications of their choices.

CGE, Energy Plus and IGS deem that certain business practices would need to be in place to ensure a properly functioning market for energy competition. In their view, everyone benefits when marketers are held to a set of basic, accountable standards to ensure compliance with credit requirements, marketing guidelines, and other sound business practices. They asserted that credit requirements for natural gas

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and electricity are critical. They think it is ethical for DEEP to develop a set of uniform business practices that would apply to both natural gas and electricity providers. These standards and business practices would provide customers with fair practices, signal the continuing viability and existence of a competitive market, and level the playing field between competitors. Moreover, DEEP would be empowered to revoke a license when a given marketer fails to ensure reliability and integrity.

CGE, Energy Plus and IGS value the use of Purchase of Receivables (POR) program as part of a utility consolidated billing system. They stated that POR programs provide a jumpstart to consumer confidence, enable the marketer and utility to work together for a common purpose, help leverage utility building systems, reduce redundancy, and send a clear message to consumers about the reliability of energy supply services.

Lastly, CGE, Energy Plus and IGS argued that the current utility price comparison models are too complicated. In their opinion, these models should be completely unbundled with all the specific components (e.g., taxes and surcharges) detailed, as price disclosures enable true commodity comparison. Moreover, they recommended that the use of such models should be considered temporary until a critical mass of customers has migrated from utilities and is engaged in the free, transparent marketplace.

RELIABILITY AND SECURITY CONCERNS

EES recommended that the CES should include consideration of reliability and security-related concerns, either as a specific section on energy security or as a cross-cutting approach with a security section for each sector. EES stated that little attention has been paid to potential cyber threats and other vulnerabilities to the grid. EES suggested that the Energy Assurance Plan (which has not been updated since 1994 but has been under redevelopment since 2009) should, at a minimum, be included as a portion of the CES. According to EES, even in draft form, the Energy Assurance Plan is lacking and needs to address low probability but extremely high risk events.

OTHER NON-SECTOR-SPECIFIC COMMENTS

CL&P and Yankee Gas proposed that the CES should call for the deliverable fuel associations and water companies to contribute in any related initiatives. PURA recommended that policymakers direct the natural gas pipeline industry and electric generation industry to harmoniously resolve any supply issues and objectives between the two markets.

DEEP RESPONSE

The Natural Gas Chapter focuses largely on the opportunities for Connecticut in pursuing natural gas expansion. As part of DEEP's consideration of the natural gas expansion opportunity, issues such as increased reliance on natural gas, infrastructure expansion, price projections, natural gas retail choice, the hurdle rate and CIAC policies, capacity release and storage, and cost-benefit analyses are also covered.

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DEEP expects to address the technical and analytical details outlined in this chapter at the technical meetings that will be held during the CES public comment period.