



**Connecticut DPUC  
RFP to Reduce Impact of FMCCs  
RFP Pre-Bid Meeting**

**Hartford, CT  
October 10, 2006**

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# Agenda

- Today's meeting and introductions
- Overview of RFP
- Contract Templates
- Questions & Answers
- Conclusion

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# Today's meeting



<b>10:00 to 10:15</b>	<b>Introduction by Don Downes</b>
<b>10:15 to 12:00</b>	<b>LEI presents RFP and contracts</b>
<b>12:00 to 1:00</b>	<b>Lunch break</b>
<b>1:00 to 4:00</b>	<b>DPUC &amp; LEI Panel moderates Q&amp;A</b>
<b>4:00 to 4:30</b>	<b>Conclusions by Don Downes</b>

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# Introduction to DPUC and LEI Team



## ■ Department of Public Utility Control

- Chairman Don Downes
- Mark Quinlan
- Rob Luysterborghs
- Michael Chowaniec
- Eric Jacobi
- Cindy Jacobs

## ■ London Economics International – the RFP Coordinator

- Julia Frayer
- Bridgett Neely
- Dana Zentz (Inland Energy Consulting)

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# Overview of RFP

- Primary objective is to **reduce the impact of FMCCs** and other costs on Connecticut ratepayers by facilitating the development of **new or incremental** generation or demand-side capacity in Connecticut
- Capacity must be electrically (generation) or physically (non-generation demand resources) **located in Connecticut**
- Contract pricing will settle against ISO-NE Markets
  - Forward Capacity Market (mandatory)
  - Locational Forward Reserve Market (at bidder's election in the proposal)
  - Day-Ahead Energy Market (at bidder's election in the proposal)
- Connecticut electric distribution companies will serve as counterparties to contracts for **terms of up to 15 years**
- Two separate contracts – generation and demand resources
- Bids will be evaluated using a method that involves **cost-benefit analysis** and as well as an assessment of Other Factors based on Connecticut's policy priorities

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# RFP timeline



<b>Date Qualification Submissions Due:</b>	<b>November 13, 2006 by 5 PM</b>
<b>Date Financial Bid Submission Due:</b>	<b>December 13, 2006 by 5 PM</b>
<b>Date by which DPUC issues a Decision on selection process and announces winning bidders:</b>	<b>No later than April 23, 2007</b>
<b>Date by which contracts must be executed and filed by the distribution utilities with the DPUC for approval:</b>	<b>Within 15 calendar days after bid selection Decision issued</b>
<b>Date by which DPUC issues a Decision approving the Contracts:</b>	<b>No later than November 8, 2007</b>

# Connecticut's aggregate investment needs will range from 629 MW to 2,483 MW by 2021

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Greater Connecticut</b>															
Scenario 1	629	629	625	626	626	623	624	623	623	624	624	813	997	1,201	1,409
Scenario 2	629	626	626	624	623	625	625	625	625	624	624	813	997	1,201	1,409
Scenario 3	629	625	623	629	625	629	624	624	624	625	621	624	625	625	629
Scenario 4	629	631	631	631	633	693	716	723	812	1,059	1,311	1,608	1,900	2,188	2,483
<div style="display: flex; align-items: center; gap: 10px;"> <div style="width: 20px; height: 15px; background-color: yellow; border: 1px solid black;"></div> = Investment needs driven by LFRM  <div style="width: 20px; height: 15px; border: 2px dashed black;"></div> = Investment needs driven by FCM         </div>															
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Southwest Connecticut</b>															
Scenario 1	158	58	56	58	58	54	55	54	54	55	55	55	56	56	58
Scenario 2	158	58	58	55	54	56	56	56	56	55	55	55	56	56	58
Scenario 3	158	56	54	60	57	60	56	56	56	57	53	55	56	56	58
Scenario 4	158	58	58	58	59	73	81	83	85	79	79	75	56	58	58
<div style="display: flex; align-items: center; gap: 10px;"> <div style="width: 20px; height: 15px; background-color: yellow; border: 1px solid black;"></div> = Investment needs driven by LFRM  <div style="width: 20px; height: 15px; border: 2px dashed black;"></div> = Investment needs driven by FCM         </div>															

**The DPUC will select projects in light of these investment needs estimates, based on the Financial Bids received and CT policy priorities.**

Please refer to the August 25, 2006 Investment Needs Report (Revised) for more information about this analysis and the underlying assumptions.

# Projects must meet the following criteria to be eligible

- ✓ Resource that provides generation or demand-side capacity, including, but not limited to generation, grid-side distributed resources, and customer-side distributed resources
- ✓ Electrically located in Connecticut (generation) or physically located in Connecticut (demand resources)
- ✓ New or incremental capacity
  - ✓ New capacity, not previously listed on ISO-NE's CELT report
  - ✓ Deactivated units will count as new capacity as long as they are replaced or refurbished within first 3 years of contract
  - ✓ Entire capacity from refurbished or repowered projects will be accepted under contract as long as aggregate capacity at site increases for fixed amount of time, assets were at least 30 years old, and new investment increases capacity by larger of 40 MW or 20% of site's summer capability
  - ✓ For refurbished or repowered projects that can not meet one of these requirements, incremental capacity can be bid
- ✓ Any Demand Side Resource not currently enrolled in ISO-NE or DPUC program is eligible; others eligible to bid for period after funding ends

# Minimum Requirements to be demonstrated in RFP (1/2)

## GENERAL

- Project must be eligible pursuant to terms of RFP to participate
- Resource qualifies for CT's Local Sourcing Requirement
- Bidder must be willing to sign DPUC-approved Master Contract
- Proposal must be submitted on time and must comply with submission instructions
- Bidder's Financial Bid and terms of proposal must be binding through November 8, 2007
- Appropriate level of Project Security Deposit must be provided on December 13, 2006

## TECHNICAL

- Bidder team must demonstrate project experience, technical expertise, and management capability needed to develop and operate project successfully
- All projects, with some DR exceptions, must meet technical and operating requirements to participate in FCM (based on project type)
- Project must be electrically/physically located in CT (based on project type)
- Projects producing electrical energy must be deliverable in CT under typical system conditions

# Minimum Requirements to be demonstrated in RFP (2/2)

## FINANCIAL

- Financial Bid is firm and binding
- Bidder must be able to financially secure the project and the contract
- Bidder must be able to demonstrate that it possesses a viable plan to finance the project
- Firm commitment letters for financing will be required at Financial Bid Submission
- Winning bidders must be able to post the Completion and Performance Security once contracts have been executed

## SITING

- Bidder is responsible for meeting and satisfying all federal, state, and local permits, licenses, approvals that are required for project development and operation
- Bidders must demonstrate some level of site control over the project
- The more advanced the bidder is in terms of possessing site control and permits, the lower the project's perceived execution risk in Bid Evaluation process

# The Call Option will provide a hedge against energy prices to ratepayers in exchange for guaranteeing additional revenues to Suppliers

**Supplier**

Contract Quantity x  
[positive values of  
(Hourly Day Ahead  
Energy Price at CT  
Load Zone – Strike  
Price)]

Fixed \$/kW payment  
per annum based on  
Call Option Contract  
Quantity

**Buyer**

**CT Ratepayers**

- Supplier receives fixed payment in exchange for taking on risk that Day-Ahead Energy Prices rise above the Strike Price
- Buyer (and CT ratepayers) will obtain a hedge against energy prices above strike prices

## **Bidders need to submit:**

- Supplemental Capacity Payment required in \$/kW p.a. terms
- Strike Price in \$/MWh
- Index against which Strike Price will be adjusted (if desired). Index could be existing publicly available index or customized index showing year-on-year percentage change desired.

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# Completing your proposal: next steps



- ✓ **Qualification submission due November 13, 2006 by 5 PM**
  - ✓ **Appendix E: Introduction to Bidder Team**
  - ✓ **Appendix F: Minimum Technical Requirements**
  - ✓ **Appendix G: Financial Questionnaire**
  - ✓ **Appendix H: Project Description Questionnaire**
  - ✓ **Appendix I: Anticipated Project Financing Description**
  
- ✓ **Financial Bid Submission due December 13, 2006 by 5 PM**
  - ✓ **Appendix J: Financial Bid Template**
  - ✓ **Updates to Appendix F, H, and I if needed (Bidders must have and communicate compelling reasons for amendments to these forms to the DPUC)**
  - ✓ **Refundable Project Security Deposit**

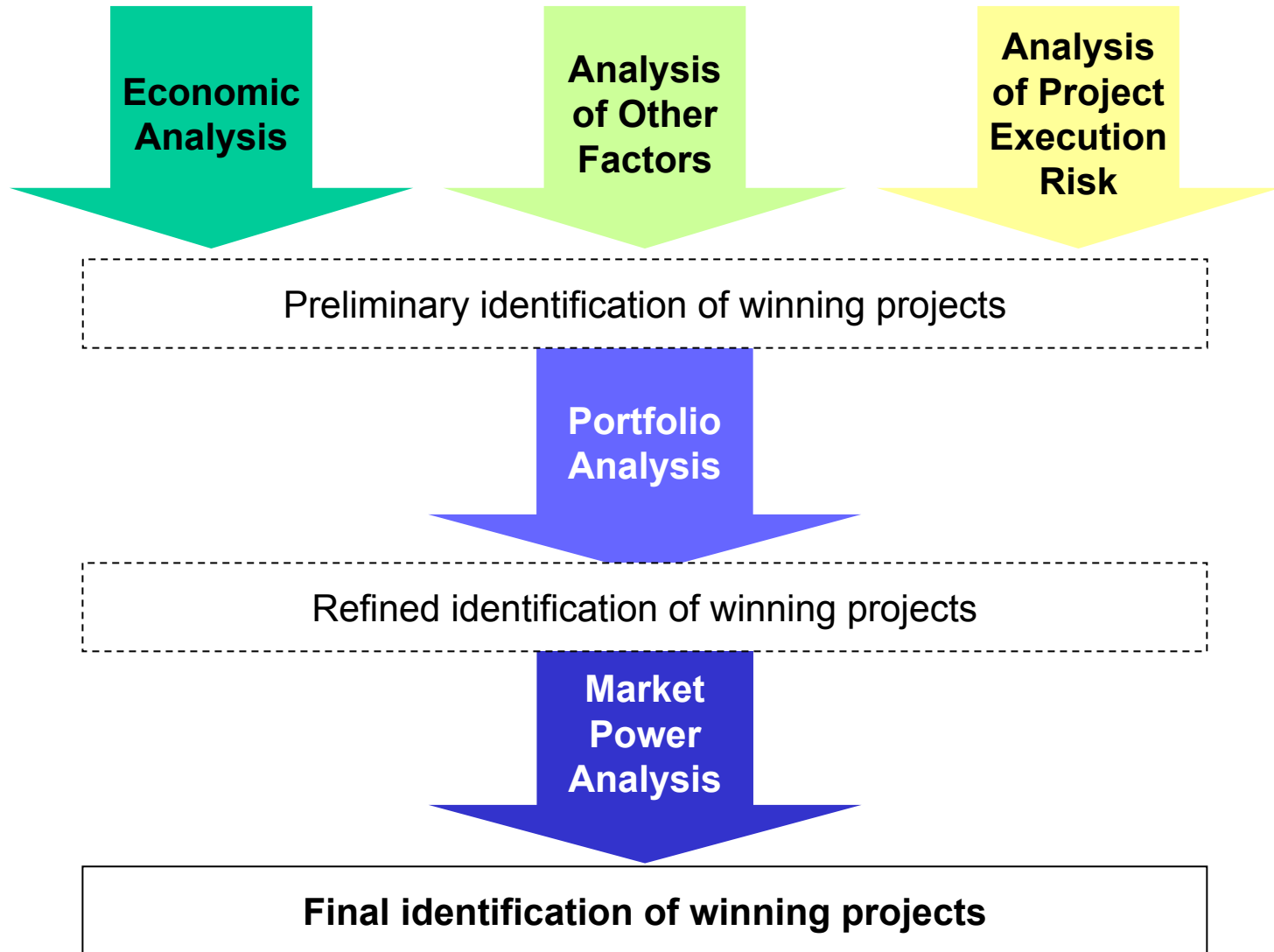
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# Forms must be thoroughly completed for Qualification and Financial Bid Submission



- **We will not accept “To be Determined”** on forms submitted in the Qualification and Financial Bid submission, including but not limited to topics such as project type, capacity, location, expected commercial operation date, and annual contract price
- **Forms should be filled out as completely as possible:** if you are concerned that certain questions are not applicable to your project, check with the RFP Coordinator
- **If changes to your project affect previously submitted Appendix F, H, and I,** please submit amended form with explanation for reason of amendment to RFP Coordinator and to the DPUC as soon as possible
- **Forms must be submitted by the due date** pursuant to instructions in RFP. There will be no exceptions.

# Overview of bid evaluation process



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# Bid evaluation process: Cost- Benefit Analysis of Financial Bids (1/2)

- Development of baseline outlook of market prices in relevant ISO-NE product markets (FCM, LFRM, and Energy) under a variety of plausible future market conditions, which constitute the benchmark scenarios against which all projects are evaluated
- Calculation of Project ABC's Benefits:
  - Re-estimation of market prices in relevant ISO-NE product markets using assumptions of baseline outlook, including proposed project ("impact scenarios")
  - Comparison of annual costs to load between impact scenarios and baseline outlook
  - Calculate present value of Project ABC's projected annual benefits using 9.8% discount rate to 2006 dollar terms

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# Bid evaluation process: Cost- Benefit Analysis of Financial Bids (2/2)



- Calculation of Project ABC's Costs:
  - Estimate costs of contract/project to ratepayers using impact scenarios and calculate net payments to Project ABC based on Project ABC's proposed annual contract price for each product market (as relevant)
  - Additional ratepayer funding to project will also be included as a cost item
  - Calculate present value of Project ABC's costs using 9.8% discount rate to 2006 dollar terms
- Calculate Net Benefit to CT ratepayers by subtracting Project ABC's PV costs from its PV Benefit

***Projects must have a positive net benefit to Connecticut ratepayers to be selected***

# Bid evaluation process: Analysis of “Other Factors” (1/2)

## Environmental emissions

- Based on relative change in SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> emissions (based on ton/kW basis) attributable to project over the term of the Agreement, estimated using the modeling simulations from the baseline outlook and impact scenarios
- Total of 5 points possible
- Allocation of points will be based on project’s percentile ranking among other projects – top 16.67<sup>th</sup> percentile gets 5 points while projects that do not reduce emissions will not receive any points

## Existing sites & infrastructure

- Projects on existing electric generation sites and demand resources will receive full 2.5 points
- Projects on sites with certain supply infrastructure but not pre-existing generation site will receive 2 points
- Projects that rely exclusively on existing transmission or generation infrastructure will receive 1 point
- Projects that are using sites that have never been used for electric generation and will require new fuel supply and/or transmission lines will not receive any points

# Bid evaluation process: Analysis of “Other Factors” (2/2)



## Fuel Diversity

- Renewable projects and Demand Resources will be granted the full 2.5 points
- Other non-natural gas and non-oil fired and plants will receive 1.25 points
- Natural gas-fired and oil-fired plants will not receive any points

## Front-loading of costs

- Projects that have positive annual net benefits for the first 5 years of their Contract Term will be allocated 2.5 points
- Projects with annual net benefits that are negative for one of the initial 5 years of their Contract Term will be allocated 2 points; 2 negative years results in 1.5 points; 3 negative years results in 1 point; 4 negative years results in 0.5 points
- Projects with annual net benefits that are negative for the first 5 years of their Contract Term will not receive any points

## Other

- Projects will be granted up to an additional 2.5 points for Other Benefits that the project can produce based on relevant, reliable, and objective information articulated by the Bidder to the DPUC
- Such benefits may include but are not limited to improving the reliability of the transmission network, reducing local unemployment, projects with high levels of efficiency

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# Key elements of contracts

- **Contract for Differences** that settles against ISO-NE Markets, as selected by bidder
  - Forward Capacity Market (mandatory)
  - Locational Forward Reserve Market (optional at election of Bidder)
  - Day-Ahead Energy Market (through Call Option) (optional at election of Bidder)
- Monthly settlement based on 1/12 of the Annual Contract Price(s) and actual market prices (or auction prices) in relevant ISO-NE Markets
- Term of **up to 15 years**, starting from commercial operation
- Connecticut **electric distribution companies** serving as counterparties, recovery of costs of this contract statutorily mandated
- **DPUC has special role** in this contract

# Pricing mechanism is based on monthly settlement between market prices and contract price

Monthly Contract Price (\$/kW)	Case 1	Case 2	Case 3
FCA	\$ 8.00	\$ 8.50	\$ 9.00
Net LFRM	\$ 5.00	\$ 6.00	\$ 5.50
Call Option	\$ 4.00	\$ 4.00	\$ 4.00
Contract Quantity (MW)	Case 1	Case 2	Case 3
FCA	10.0	10.0	10.0
Net LFRM	3.0	3.0	3.0
Call Option	5.0	5.0	5.0
Auction Clearing Price (\$/kW/month)	Case 1	Case 2	Case 3
FCA	\$ 7.00	\$ 8.00	\$ 9.00
Net LFRM	\$ 6.00	\$ 6.00	\$ 6.00
Call Option Components	Case 1	Case 2	Case 3
Average Price in Day-Ahead Energy Market (\$/MWh)	\$ 60.00	\$ 65.00	\$ 52.00
Strike Price (\$/MWh)	\$ 55.00	\$ 55.00	\$ 55.00
Auction Price minus Strike Price (\$/MWh)	\$ 5.00	\$ 10.00	\$ (3.00)
Hours in selected period (month)	720	720	720
Is there an amount payable from Seller to Buyer?	Yes	Yes	No
Monthly Payment Amount (\$)	Case 1	Case 2	Case 3
<i>(positive indicates payment to Supplier; negative indicates payment to Buyer)</i>			
FCA	\$10,000.00	\$ 5,000.00	\$ -
Net LFRM	\$ (3,000.00)	\$ -	\$ (1,500.00)
Call Option	\$ 2,000.00	\$ (16,000.00)	\$ 20,000.00
<b>Net</b>	<b>\$ 9,000.00</b>	<b>\$ (11,000.00)</b>	<b>\$ 18,500.00</b>

**Monthly payment amounts will vary depending on market prices**

**Positive amount paid by Buyer to Supplier**

**Negative amount paid by Supplier to Buyer**

**Monthly payment amounts will be adjusted for ISO penalties and other performance requirements**

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# Key Supplier Obligations

- ✓ Facility must be located in CT (electrically for generation so that it qualifies for CT's Local Sourcing Requirement, physically for demand resources and, if applicable, such that it qualifies for CT's Local Sourcing Requirement)
- ✓ Supplier will incur liquidated damages if project's Commercial Operation Date delayed beyond milestone or if summer demonstrated capacity during Contract Term falls below Contract Quantity
- ✓ Generation projects must maintain availability levels and heat rates
- ✓ Supplier must participate in relevant ISO-NE Markets
- ✓ Supplier must bid as directed in Contract in relevant ISO-NE Markets
- ✓ Project Completion and Performance Security must be maintained over entire Term
  - ✓ \$100/kW before COD and \$25/kW after COD for generation
  - ✓ \$35/kW before COD and \$15/kW after COD for demand resources

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# Other important Terms and Conditions

## ■ Market rules change:

- Supplier agrees to participate in ISO-NE Markets as long as it is eligible to do so, even if economic costs incurred
- If Supplier is ineligible to participate in ISO-NE Markets, agreement to be re-negotiated with Buyer and DPUC such that economic balance between Buyer and Supplier maintained

## ■ Change of control, assignment, sale provisions

- No change of control, assignment, or sale by Supplier allowed first 3 years of contract or for 1 year after COD (whichever is greater), except for purposes of collateral assignment
- Subsequently, DPUC approval required though will not be unreasonably withheld as long as new entity has requisite financial, managerial, and technical wherewithal

## ■ Governing law

- The interpretation and performance of this agreement shall be governed by the laws of the state of Connecticut
- Any litigation under this contract must occur under Conn. Gen. Stat. 52-408 et seq.

# Key differences between Generation and Demand Resource Contract



## Generation

- Liquidated damages for missing key milestones before COD (which are refundable if COD met), as well as for liquidated damages for missing COD
- Must be eligible to participate in the FCM
- Requirements to maintain Target Availability, with liquidated damages for deficiency
- Requirements to maintain heat rate
- Requirement for natural gas generators to store alternative fuel on site

## Demand Resources

- Liquidated damages for missing COD only
- If eligibility in FCM or eligible Contract Quantity for FCM affected by ISO-rules changes, no liquidated damages
- Contract Quantity will be adjusted to account for ISO-NE adjustments regarding avoided losses or ICAP margin pursuant to ISO-NE rules
- No additional liquidated damages for availability above and beyond ISO-NE penalties

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# Bidder next steps



- **Submit Qualifications package by November 13, 2006 at 5 PM**
- **Email any questions to**  
[RFPCoordinator@connecticut2006RFP.com](mailto:RFPCoordinator@connecticut2006RFP.com)
- **Check for updates and Q&A on RFP website –**  
[www.connecticut2006RFP.com](http://www.connecticut2006RFP.com)
- **Submit Financial Bid by December 13, 2006 at 5 PM**
  - **Financial Bid Template**
  - **All other required forms must be finalized**
  - **Submit Proposal Security Deposit**

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# Resources for bidders



- RFP Website: [www.connecticut2006RFP.com](http://www.connecticut2006RFP.com)
- RFP contacts:
  - Email: [RFPCoordinator@connecticut2006RFP.com](mailto:RFPCoordinator@connecticut2006RFP.com)
  - Phone: 617-933-7225
  - Fax: 617-933-7201



**Thank you for your attention!**