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AGENDA REGULAR SESSION

CITIZENS' ADVISORY BOARD (CAB)

<u>THURSDAY</u>, FEBRUARY 18, 2010 6:30 P.M.

at

READING MUNICIPAL LIGHT DEPARTMENT 230 ASH STREET READING, MA 01867

- 1. Call Meeting to Order A. Carakatsane, Chairman
- 2. Minutes of Meeting-November 30, 2009 A. Carakatsane
- 3. Gaw Substation Update V. Cameron
- 4. Engineering & Operations Update V. Cameron
- 5. Financial Update (12/31/2009) V. Cameron
- 6. Power Supply Update (9/30/2009) V. Cameron
- 7. Green Communities Act V. Cameron
- 8. Union Negotiations V. Cameron
- 9. Twenty-Year Agreement Amendment V. Cameron
- 10. Twenty-Year Agreement Extension V. Cameron
- 11. Generation Portfolio Standard (See attached) Q. Vale
- 12. Other Items for Discussion
 - a. CAB Rotation Schedule for RMLD Board Meetings P. O'Leary
 - b. FY2011 Budgets
- 13. Schedule Next Meeting
- 14. Executive Session

Suggested Motion:

Move that the CAB go into Executive Session based on Chapter 164 Section 47D, exemption from public records and open meeting requirements in certain instances, to discuss power supply, to approve minutes, and return to Regular Session for the sole purpose of adjournment.

15. Adjournment

Next RMLD Board Meeting: Wednesday, February 24, 2009, 7:30 P.M.

CAB Representative: TBD

Reference Information - Appropriate topics for Executive Session: This Agenda has been prepared in advance and does not necessarily include all matters, which may be taken up at this meeting.

Chapter 164: Section 47D. Exemption from public records and open meeting requirements in certain instances

Section 47D. A municipal lighting plant created pursuant to the provisions of this chapter or any special law shall be exempt from the public record requirements of section 10 of chapter 66 and the open meeting requirements of section 23B of chapter 39 in those instances when necessary for protecting trade secrets, confidential, competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter.

Reference Information - Appropriate topics for Executive Session: This Agenda has been prepared in advance and does not necessarily include all matters, which may be taken up at this meeting.

- (1) to discuss the "reputation, character, physical condition or mental health rather than the professional competence" of a particular individual,
- (2) to consider the discipline or dismissal of, or to hear complaints or charges brought against a public officer, employee, staff member, or individual,
- (3) to discuss strategy with respect to collective bargaining or litigation, if an open meeting may have a detrimental effect on the bargaining or litigating position of the governmental body; to conduct strategy sessions in preparation for negotiations with nonunion personnel; and to conduct collective bargaining sessions or contract negotiations with nonunion personnel,
- (4) to discuss the deployment of security personnel or devices,
- (5) to investigate charges of criminal misconduct or to discuss the filing of criminal complaints,
- (6) to consider the purchase, exchange, lease or value of real property if an open discussion may have a detrimental effect on the negotiating position of the governmental body with a person, firm, or corporation,
- (7) to comply with the provisions of any general or special law or Federal grant-in-aid requirements,
- (8) to consider and interview applicants for employment by a preliminary screening committee or a subcommittee appointed by a governmental body if an open meeting will have a detrimental effect in obtaining qualified applicants; provided, however, that this clause shall not apply to any meeting, including meetings of a preliminary screening committee or a subcommittee appointed by a governmental body, to consider and interview applicants who have passed a primary or preliminary screening,
- (9) to meet or confer with a mediator, as defined in section twenty-three C of chapter two hundred and thirty
 - respect to any litigation or decision on any public business within its jurisdiction involving another party, group or body, provided that: (a) any decision to participate in mediation shall be made in open meeting session and the parties, issues involved and purpose of the mediation, shall be disclosed; and (b) no action shall be taken by any governmental body with respect to those issues which are the subject of the mediation without deliberation and approval for such action at an open meeting after such notice as may be required in this section.

and to return to regular session [choose applicable topics]

- (1) for the sole purpose of adjournment;
- (2) for the purposes of continuing regular session; [individually list each Commissioner and their vote]

Revised in accordance with the Open Meeting Law Guidelines, September, 2003

CITIZENS' ADVISORY BOARD MEETING MINUTES Regular Session

TIME:

6:30 P.M.

DATE:

Monday, November 30, 2009

PLACE:

Town of Wilmington, Town Hall, 121 Glen Road, Room 9, Wilmington

PRESENT:

CAB: A. Carakatsane, Chairman, (Lynnfield), Q. Vale (Wilmington), T. Sopchak, (Reading),

G. Hooper (Wilmington), J. Norton (North Reading)

RMLD Board: Vice Chair Hahn

RMLD Staff: V. Cameron, J. Foti, J. Parenteau, K. Sullivan, J. Carpenter, R. Fournier

1. Call Meeting to Order - A. Carakatsane, Chairman

Chairman Carakatsane called the meeting to order at 6:37 P.M.

2. Minutes of Meeting September 14, 2009 - A. Carakatsane

Mr. Vale made a motion seconded by Mr. Hooper to approve the Regular Session Minutes of September 14, 2009 as written.

Motion carried 3:0:1 with Mr. Norton abstaining.

3. Gaw Substation Update - V. Cameron

Mr. Cameron reported that in late August the RMLD detected PCB's at the Gaw substation. The RMLD performed sampling at the site and notified both the Massachusetts Department of Environmental Protection (MADEP) and the Environmental Protection Agency (EPA). Subsequently, the RMLD's Licensed Site Professional (LSP) developed a report outlining the contamination found, sampling performed, future sampling needed and safety measures going forward, which was sent to the EPA.

The EPA has reviewed the RMLD's report and has given the go ahead to proceed with additional sampling and excavation under safety measures outlined in the report.

Mr. Cameron explained that as part of its investigation into the contamination, interviews were conducted with former RMLD employees and records were researched. Mr. Cameron explained that in the 1970's there were capacitor banks in the substation. Capacitor banks are utilized to keep up with the voltage for the high load periods. These capacitor banks failed from time to time and were dismantled which had low levels of oil and PCB's. Once they were dismantled and replaced minimal amounts of PCB went into the soil. More sampling will be undertaken to include vertical sampling to see how far down the contamination is.

Discussion ensued.

Mr. Sullivan reported that sampling was performed last Monday. On Tuesday and Wednesday sampling was also performed in the areas which they were going to continue with construction. This was to ensure the areas they were placing the concrete no further excavation needed to be performed (this is called pre characterization of the soil). No soil needs remediation at the concrete walls. Once they get the containment walls in place and the concrete in place then old 110 C can be taken out and new 110 B can be put in place.

Ms. Sopchak entered the meeting at this point.

Discussion ensued.

4. Engineering & Operations Update – K. Sullivan

a. Gaw Transformer Upgrade Report (10/31/2009)

Mr. Sullivan reported for the month of October they are up \$638,000, largely due to Fischbach & Moore's (RMLD's contractor) invoice \$530,000 which accounts for 40% of contract labor. Procured equipment and RMLD Labor round out that figure.

4. Engineering & Operations Update – K. Sullivan

a. Gaw Transformer Upgrade Report (10/31/2009)

Schedule of milestones and tangible milestones lost several months due to the soil contamination issue. The timeline has been pushed three months to April versus January without the full impact of the sampling and remediation.

Construction was resumed today. The RMLD received an approval drawing from the switchgear vendor. Old 110 B has been removed and is ready for transport to the Midwest. 110 C is pitch hitting for old 110 B until concrete walls and containment are in place.

Discussion ensued.

b. Capital Plan/Reliability Report (10/31/2009)

Project 1 – Completed in September with \$1,500 expense in October.

Project 2 – Will be completed tomorrow.

Project 3- Will begin once the cable comes in.

Project 4 – Complete.

Project 6 - Underway.

Project 8 - Underway the next two weeks.

Project 11 – Gaw which has been addressed.

Residential customer service connections average 45 to 50 per month; this has increased slightly from earlier this year. Routine construction on the cutout replacement program, (102 cutouts up to 134 year to date 259 on pace with replacing 562 annually).

Mr. Sullivan then reported on the Reliability Report.

CAIDI

RMLD System CAIDI - 43.42 Rolling average.

Six out of the ten months best in years.

SAIFI

19 MBTI prior month 27, MBTI this month. 5 out of 10 month's best ever, January, March, May, August and September. Since the RMLD is better than the industry standard Mr. Sullivan is going to measure the RMLD against itself.

Discussion ensued.

5. Quarterly (9/30/2009) Financials Update - R. Fournier

Mr. Fournier reported on the Quarterly Financials:

First three months to date results are positive. The only major incident going on is the Gaw project which has been addressed. Change in Net Assets or Net Income was \$1.8 million. The budgeted Net Income for this period was \$1.3 million with the result in Net Income \$500,000. The difference between the Fuel Expense and the actual Fuel Revenue is \$1.2 million.

Base revenues were under budget by \$600,000 or 5.1%. Actual base revenues were at \$10.8 million compared to the budgeted amount of \$11.4 million. Residential sector was over budget.

5. Quarterly (9/30/2009) Financials Update - R. Fournier

This year's kilowatt hour sales for the first three months kilowatt hour sales versus the actual for the first three months of last year, are down 6.6% or 13. 5 million kilowatt hours.

Purchased power base expense was \$182,000 or 2.50% over budget. Actual purchased power base costs were \$7.4 million compared to the budgeted amount of \$7.2 million.

Operating and Maintenance expenses combined were under budget by \$600,000 or 22%. Actual O&M expenses were \$2.1 million compared to the budgeted amount of \$2.7 million. Major expenses under budget are energy audit expense and conservation \$107,000, overhead maintenance \$44,000, employee pension/benefits \$200,000 and professional services \$56,000. Depreciation expenses and voluntary payments to the Towns were on budget.

Discussion ensued.

Mr. Fournier replied that there was more activity in October for the energy audits.

Mr. Carpenter said that he has met with commercial customers however, does not see any projects in the year end. Mr. Carpenter reported that there are a couple of projects in the pipeline that will come to fruition in the first guarter of next year that will come in at \$150,000.

Ms. Sopchak asked if the rebates are paid out of the energy audit expense and conservation.

Mr. Carpenter replied, "yes."

Operating Fund balance \$4.3 million, Capital Fund balance \$5.5 million, Rate Stabilization Fund balance \$5.2 million and Deferred Fuel Fund balance just under \$3 million.

Receivables over sixty days are at 4.1% or \$225,000. Mr. Fournier explained that with the moratorium in November the receivables will increase. However, the numbers are low due to the Credit and Collections Department.

6. Power Supply Update (9/30/2009) – J. Parenteau

Ms. Parenteau reported on the load for September was 55.5 million kilowatt hours which was a decrease of 9% compared to September 2008.

Energy costs were approximately \$3 million which is equivalent to .0535/kWh. The September Fuel Charge Adjustment was 6.65. RMLD kilowatt hour sales were 65.2 million kilowatt hours. RMLD overcollected by \$1.3 million resulting in a Deferred Fuel Cash Reserve balance of \$2.9 million which is in the range of \$2.5 to \$2.9 approved by the Board.

In November and December the RMLD dropped the fuel charge by half a mill to 6.15¢ kilowatt hour.

RMLD purchased 11.3% of its energy requirement from ISO-NE Spot Market. RMLD hit a demand of 104.5 megawatts on September 23. This compared with a demand of 140 megawatts in September, 2008 which represents a 25% reduction. The average temperature this year was 75 degrees; in 2008 it was 86 degrees.

Ms. Sopchak asked that in terms of cost, ISO-NE is the highest whereas Seabrook is the second highest cost amount of kilowatts are only 80.

Ms. Parenteau explained that is because based on capital costs the RMLD is paying a mortgage on those plants. The power is inexpensive on the Seabrook versus from ISO-NE.

Ms. Sopchak asked how long the RMLD has its contract with Seabrook.

6. Power Supply Update (9/30/2009) - J. Parenteau

Ms. Parenteau explained that until 2017 to 2018 RMLD has debt service expenses incurred with Millstone and Seabrook. RMLD's monthly requirement for September 2009 was 228 Kw. Overall RMLD paid \$1.6 million which is equivalent to \$7.11 kilowatt month. Transmission side the RMLD paid \$841,000 for September.

Ms. Sopchak commented that there was a huge increase in transmission costs.

Mr. Carakatsane explained that during the budget process last year the increase in transmission costs were discussed and will be up again this year as well.

a. BELD Contract Amendment(s)

Ms. Parenteau explained that in early October the RMLD received an amendment to the Braintree Watson contract. These changes were brought to the Power and Rate Committee as well as the Board of Commissioners. There were modifications in the contract because it was created prior to the development of the project and needs some fine tuning since there have been no negotiated contracts since the 80's on new projects.

Ms. Parenteau said that the changes include the bonding interest rate which is lower; therefore BELD is expected to pay bond premium payments. There was no provision for BELD to do that in the prior contract. The RMLD projects it will receive \$200,000 back due to the modification. The way bond premiums are paid is semi annually versus annually and will be booked out as accruals.

Mr. Fournier explained that this way it evens it out in the Financials.

Ms. Parenteau also explained that the wording in the determination of the fuel charge there was a minor modification made.

Ms. Parenteau added that in the original contract there was a working in capital clause change. Ms. Parenteau explained that the amended contract has not been signed.

Mr. Carakatsane explained that the amended contract has not been signed with BELD pending this meeting.

Mr. Norton made a motion seconded by Mr. Hooper that the Citizens' Advisory Board recommend to the Reading Municipal Light Board the approval of the amended and restated contract between RMLD and BELD, recommend the authorization of the General Manager to sign the revised agreement.

Motion carried unanimously, 5:0:0.

b. Concord Steam

Ms. Parenteau reported that Concord Steam approached the RMLD again in October. In February 2009, the General Manager sent Concord Steam a letter based on the estimated costs of 14¢ to 16¢ kilowatt hour and it was not the right time to go forward with this contract. The Power and Rate Committee and the Board agreed with the General Manager and Staff to reenter negotiations with Concord Steam for the purpose of developing an executable contract that would be brought to the Power Contracts, Rate Setting ,and Green Power Committee, the CAB, and the RMLD. The project is scheduled to come online in May 2011. It is a wood burning project. Ms. Parenteau explained that this fits into the RMLD's strategic plan to get renewables into RMLD's portfolio this could be a viable project.

Mr. Vale asked if Concord Steam received a determination from the Department of Energy Resources that this would qualify as a Class 1 renewable.

Ms. Parenteau said Concord Steam has received the determination as a Class 1 renewable.

7. Generation Portfolio Standard - Q. Vale

Mr. Vale reported that he will report on the Generation Portfolio Standard at a future meeting. Mr. Vale has received information from the Department of Energy Resources and is seeking additional information from the Union of Concerned Scientists.

Mr. Carakatsane also suggested looking to American Public Power Association for more information. This item was tabled.

8. Green Communities Act - V. Cameron

Mr. Cameron reported that the Town of Reading is endeavoring to become a Green Community. Mr. Cameron has communicated with Mark Sylvia from the DOER on Reading becoming a Green Community and what would be expected from the RMLD. In Mr. Sylvia's e-mail to Mr. Cameron he said that if the Town of Reading becomes a Green Community and they opt into the Massachusetts Technology Collaborative (MTC) there is a charge for this. The charge is 1/2 a mill per kilowatt hour and allows cities and towns that contribute to the fund to draw funds out for renewable energy projects. Mr. Sylvia said that if the Town of Reading becomes a Green Community then all four communities in the RMLD's service territory will be charged the MTC charge. Mr. Cameron does not agree with the statute and perhaps municipals were not consulted for input on this. Mr. Cameron said that the communities should consider this issue.

Mr. Norton asked how much the cost would be for each community.

Mr. Cameron replied less than \$5 per year for an average residential customer, however commercial customers would be different based on their usage.

Discussion ensued.

Mr. Cameron said that he would put together a letter explaining the Green Communities Act issue and send it to the CAB so they can use it in their explanation to their respective towns.

9. & 10. Twenty-Year Agreement Amendment and Twenty-Year Agreement Extension – V. Cameron Mr. Cameron said that next year 2010 is the time for the second extension of the Twenty-Year Agreement. Mr. Cameron said that in 2000 the towns did this in different ways. The extensions were not signed off until 2003. Mr. Cameron sent an e-mail with the letters that Ms. O'Leary put together in draft form. Mr. Cameron wanted feedback on the letters. Mr. Cameron would like to get the meeting with the Selectmen in the beginning of next year and on the warrant for Town Meeting next year.

Discussion followed.

Mr. Cameron said that he will send a letter to the Chairman of the Selectmen of the four towns explaining the Twenty Year Agreement Extension and the CAB members will get a copy of the letter.

11. Other Items for Discussion

Mr. Cameron said that the American Public Power Association Legislative Rally is at the end of February and he will be attending.

Mr. Carakatsane said that he is available to attend the APPA Legislative Rally.

Mr. Norton made a motion seconded by Mr. Hooper that one member of the Citizens' Advisory Board attend the APPA Legislative Rally in Washington, DC. **Motion carried 5:0:0, unanimous.**

Mr. Carakatsane said that although Executive Session has been posted, there is no need to go into Executive Session.

Citizens' Advisory Board Meeting Minutes November 30, 2009

	Schedule Nex						
Janu	iary 11, 2010	, tentatively	, Paula	O'Leary	will conta	ct the (CAB.

Mr. Hahn pointed out that the next RMLD Board meeting will be on December 16, 2009 at 7:30 P.M.

13. Adjournment

Mr. Hooper made a motion seconded by Ms. Sopchak to adjourn Regular Session at 8:05 P.M. **Motion carried: 5:0:0.**

	Respectfully submitted,
/jmf	Arthur Carakatsane, Chairman Minutes approved on:

Commonwealth of Massachusetts – Department of Energy Resources Renewable and Alternative Energy Portfolio Standards (RPS &APS)

Summary of RPS & APS Regulations

Referred to the Joint Committee on Telecommunications, Utilities, and Energy on March 19, 2009 and resubmitted May 29, 2009

RPS CLASS I

Definition changes:

- The following newly eligible resources are added, pursuant to the Green Communities Act:
 - o algae as a type of Eligible Biomass Fuel,
 - o geothermal energy,
 - o marine & hydro-kinetic energy, and
 - o hydroelectric energy.
- Eligible Liquid Biofuel (a type of Eligible Biomass Fuel) is newly defined and must meet lifecycle GHG-related & other standards based on Clean Energy Biofuels Act of 2008.
- "New Renewable" is replaced by "RPS Class I Renewable."

Eligibility changes:

- Hydroelectric Generation: For Class I qualification, Hydroelectric Generation is limited to a post-1997 Unit with a capacity no more than 25 MW or incremental capacity up to that limit at a pre-1998 facility, including increased output from efficiency improvements at such facility. Qualification is contingent on "certification" by the Low Impact Hydropower Institute (LIHI), with provision for a limited period of follow-up advice by relevant state and federal agencies with environment-related hydroelectric permitting interests either opposing RPS qualification in spite of LIHI certification (with opportunity for applicant rebuttal) or supporting an applicant's argument that the Unit should qualify in spite of LIHI non-certification.
- Incremental Generation (replaces Vintage Waiver): Class I qualification of increased output as compared to a calculated baseline (per DOER methodology) that is based on capacity additions and efficiency modifications at pre-1998 Generation Units, and provided that all other relevant Class I criteria are met. Possible Class II qualification of the portion of such Unit's output that is not Class I qualified.
- Capacity Obligations for all newly-qualified Generation Units (per DOER's Imports report):
 - o All Units may not commit Capacity to non-ISO-NE Control Areas
 - Non-Intermittent Units (biomass, LFG, some hydro not solar, wind) must commit Capacity to ISO-NE via the earliest available Forward Capacity Auction
- Imports can qualify only from Units in adjacent Control Areas, and they are limited in each hour to the lower of actual generation or actual transmission into ISO-NE Control Area. This is pursuant to the Act and also codifies current long-standing practice. Owner or Operator must self-attest to non-round-tripping (a.k.a., netting). Import Units have the same Capacity Obligation as in-region Units (see above). (Pursuant to the Act and DOER's Import report.)
- Massachusetts On-site Generation Units: [RESERVED]

- Behind-the-Meter Generation will qualify from anywhere in ISO-NE (not only in MA, which had been the case before 2009), but contingent on independent 3rd Party Meter Reader (per NEPOOL GIS standards) for monitoring & reporting to NEPOOL GIS. (Pursuant to the Act.)
- <u>Co-firing</u> provisions now cover the use of Blended Fuels mainly liquid bio-fuels.
- Aggregations (multiple, behind-the-meter Units sharing the same technology, mainly residential PV) can receive a single SQ and be treated as single Unit for RPS and NEPOOL GIS. (This codifies existing practice, now with definitions & conditions.)
- <u>Landfill methane gas</u> (LMG) currently cannot be transported via a natural gas common carrier pipeline and is used on-site or very nearby. Under a these regulations, LMG could be transported through a common carrier pipeline, but only from a landfill in ISO-NE or adjacent Control Areas to a Generation Unit within ISO-NE or adjacent Control Areas.
- Eligibility, contingent of meeting other relevant criteria, for
 - o Relocated Units (from outside ISO-NE & adjacent);
 - o Repowered Units (fossil fuel replaced by RPS Class I Eligible Renewable Fuel);
 - o <u>Replacement Units</u> (old, defunct Generation Units have all essential, old equipment/technology replaced with new/advanced, facilitating reuse of old plant buildings or sites).

Statement of Qualification Application (SQA) process and provision changes

- Current automatic opportunity for "public comment" (not under c. 30A) for SQAs from certain Unit types is replaced by such opportunity at the sole discretion of DOER.
- RPS Effective Date is now made explicit. (Codification of long-standing process.)
- Notice of additional information changes (e.g., change of ownership, contacts) will be required.
- Adds a time limit of 48 months for project implementation after the date of an SQ, failing which the Owner must submit a new SQA under possibly revised Regulations (important mainly for biomass Units, which can take some time to implement and for which standards could change).

RPS CLASS II

DOER's Regulations for Class II of RPS uses the same structure, definitions, provisions, and nearly all of the same types of eligible resources and technologies as the Regulations for the newly-revised Class I of RPS. The exceptions and differences (other than replacing "RPS Class I" throughout with "RPS Class II") are summarized below

Eligibility of Generation Units:

- Class II is limited to generation that went on-line on or before December 31, 1997, what would have been termed "vintage" in the Class I regulations.
- Hydropower eligibility is limited to a facility that has a capacity no higher than 5 MW (vs. 25 MW for Class I). Such facility would have to meet the same environmental requirements as in Class I, normally entailing certification by the Portland (ME)-based Low Impact Hydropower Institute (LIHI) and input from Relevant Hydroelectric Agencies.

- Waste Energy (from conventional municipal waste combustion technology) is added to the list, with eligibility conditioned by the requirement that the Generation Unit's Owner or Operator document the following:
 - o MassDEP approval of the Unit's participation in or operation of a MassDEPauthorized recycling program
 - O Allocation, per statute, of at least 50% of the Unit's proceeds from the sale of RECs to such a recycling program, with MassDEP monitoring compliance.
 - O The Unit's compliance with the MassDEP's emission standards for solid waste facilities, which includes stringent mercury limits.
- Behind-the-Meter Generation will be limited in capacity up to 25 MW. Behind-the-Meter Biomass Units also must meet the same strict emission limits as any other RPS Class II Biomass Units, which will be identical to the stringent limits used in Class I (limits that were developed in consultation with the MassDEP).

Class II Minimum Standards

- The RPS Class II Minimum Standard will be 3.6%.
- The RPS Class II Waste Energy Minimum Standard will be 3.5%.

Compliance by Retail Electricity Suppliers

- Annual Compliance for will be (as with Class I) by documenting to DOER a Supplier's ownership of sufficient RECs to meet the required percentages for each of the two Minimum Standards.
- The Alternative Compliance Payment (ACP) rates, which will be subject to annual adjustment by the same method as with Class I (percentage changes in the Consumer Price Index), will be as follows for 2009:
 - o For the RPS Class II Minimum Standard \$25.
 - o For the RPS Class II Waste Energy Minimum Standard \$10.

APS

DOER's Regulations for the new APS, established by the Green Communities Act of 2008 in Section 32, uses the same structure and many of the definitions and provisions as for RPS.

Eligibility of Alternative Energy Facilities:

- Eligible Technologies:
 - o Coal Gasification, but with environmental standards, including "carbon dioxide capture and permanent sequestration".
 - o Combined Heat and Power (a.k.a., cogeneration), which is defined as the concurrent production of both electricity and useful thermal (heat) energy in the same facility. The thermal output of a CHP Unit must be used within Massachusetts.
 - o **Flywheel Energy Storage**, a new technology that must participate in the Regulation Market of ISO-NE.

- O Displacement of a portion of the coal at a power plant by an equivalent or greater amount of **paper-derived "fuel cubes"** that have been granted a "beneficial use determination" by the MassDEP.
- o **Energy Efficient Steam Technology**, a technology not yet ready for commercial deployment and for which definitions and provisions are not ready at this time.
- Environmental Standards: DOER, in consultation with the MassDEP, is developing emission performance standards for all of the eligible technologies. The standards include CO2 emissions, fuel conversion efficiency, and CO2 capture and permanent sequestration, and the emissions at the facility itself, as well as those for gasification, fuel processing, and CO2 sequestration, even if remote from the site of energy generation.
- Date of Deployment and Eligibility: All facilities must have begun commercial operation on or after January 1, 2008, except for projects that involve qualified retrofit of older plants. However, only production of electricity on 1/1/08 and thereafter will qualify for credits in the program.
- Combined Heat and Power (CHP): APS eligible CHP units receive credits for the useful thermal energy of a CHP unit delivered to Massachusetts end-uses, subject to the formula included in the regulations. The rules will for the first time in the Commonwealth promote the installation and effective operation of new CHP units for appropriate residential, commercial, industrial, and institutional applications.

APS Minimum Standard:

• Every company supplying electricity at retail to Massachusetts end-use customers must obtain a small but annually increasing percentage of its electricity from facilities that area APS qualified. The APS Standard for 2009 is 1% and increases at a rate such that the standard will reach 5% by 2020.

Compliance by Retail Electricity Suppliers

- Annual Compliance for will be (as with RPS) by documenting to DOER a Supplier's ownership of sufficient Alternative Energy Certificates (AECs) at the NEPOOL GIS to meet the required Minimum Standard.
- The Alternative Compliance Payment (ACP) rate for 2009, which will be subject to annual adjustment thereafter by the same method as with RPS Class I (percentage changes in the Consumer Price Index), will be \$20.