Dynegy Inc.
601 Travis Street, Suite 1400
Houston, Texas 77002
Phone 713.507.6400
www.dynegy.com

October 16, 2017

Mr. Martin Suuberg
Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108
Via email: climate.strategies@state.ma.us

RE: Dynegy Inc. Initial Comments - 310 CMR 7.74: Reducing CO2 Emissions from Electricity Generating Facilities Stakeholder Discussion Document: Allowance Auctions

Dear Commissioned Suuberg:

Dynegy Inc. ("Dynegy") welcomes the opportunity to submit the following initial comments to the Massachusetts Department of Environmental Protection ("MassDEP") regarding the allowance auction provisions of 310 CMR 7.74: Reducing CO2 Emissions from Electricity Generating Facilities. We appreciate your agency's consideration of our comments and look forward to continued participation in the stakeholder process. If you have any questions concerning Dynegy's comments, please contact me at 713-767-5212 or at Bruce.Wilcoxon@dynegy.com.

Sincerely,

Bruce Wilcoxon
Senior Director - Environmental Affairs

cc: William Space, Massachusetts Department of Environmental Protection

Introduction

The following represents Dynegy's initial response to the MassDEP request for comment on provisions specifically pertaining to the design of the 310 CMR 7.74 allowance auction. We look forward to continued engagement during the stakeholder process culminating in our final set of recommendations to be submitted on November 15, 2017.

MassDEP Stakeholder Outreach Questions

MassDEP: Are there additional special considerations that should be taken into account for an auction of this type occurring in a single state?

Dynegy: Dynegy shares the concerns expressed previously by other Massachusetts generators as well the New England Independent System Operator regarding the value, practicality and potential negative economic and environmental consequences of a single state carbon dioxide ("CO2") emission cap on generators operating within a regional power market. However, the design of the 310 CMR 7.74 allowance auction will not address the potential for generation shifting and increased regional CO2 emissions resulting from implementation of the rule. Therefore we have no additional recommendations in response to this question.

MassDEP: When and how often should allowance auctions occur?

Dynegy: MassDEP should guarantee, at a minimum, quarterly allowance auctions as per 310 CMR 7.74 Section (6)(h)1a. To increase market participants certainty when planning for compliance, MassDEP should strike from Section (6)(h)1a the following text:

> [but the Department may adjust the frequency of such auctions as it deems necessary to effectuate the objectives 310 CMR 7.74, provided at least one auction is conducted annually.]

MassDEP: Other than regulated power plants, should any other entities be allowed to purchase allowances?

Dynegy: Auctions should be open to anyone willing and able to meet financial prequalification. However, the limit on allowances that an entity without a compliance obligation can purchase in a given auction or hold in a given year should be below such limit for any regulated generator (see below). Open auctions will enhance competition and market liquidity and will limit opportunities for collusion.

MassDEP: Should there be a minimum reserve price, and, if so, what should it be?

Dynegy: There should be no minimum reserve price for allowances sold at auction. As per 310 CMR 7.74(1):

> The purpose of this regulation, promulgated in conjunction with 310 CMR 7.75, is to assist the Commonwealth in achieving the greenhouse gas emissions reduction goals adopted pursuant to M.G.L. c. 21N, Section 3(b), by establishing declining annual aggregate CO2 emissions limits that will reduce CO 2 emissions from electricity generating facilities.

As such we believe the rule is not meant serve as a new source of revenue for the Commonwealth. Dynegy supports market-based approaches to addressing CO2 emissions and MassDEP has chosen to adopt such an approach to achieve the goals of 310 CMR 7.74. We believe the market price of allowances should reflect the marginal cost of CO2 abatement within the structure of the 310 CMR 7.74 market and should not be artificially supported with a minimum reserve price.

What limits should there be on the number of allowances that can be purchased by a single bidder?

Dynegy:
310 CMR 7.74 Regulated Facilities – Given that the compliance obligation for regulated generating facilities varies significantly based on generating capacity and emissions, the proposed uniform individual bidder purchase limit of 50% of allowances offered for sale by auction in any one auction represents an inequitable distribution of market access opportunity.

We recommend setting facility-specific single auction purchase limits based on the proportionate share of facility emissions from the previous year. Further, individual facilities should be permitted to purchase allowances equivalent to 100% of their previous year's emission at each auction. To ensure that facilities do not purchase allowances well beyond their near-term demand, each facility would have an annual allowance purchase cap of 150% of their previous year's emissions. This would allow a facility to tailor auction participation to suit their business strategy while ensuring the option to purchase enough allowances to cover reasonable variability in operations.

For example, if a facility's 2019 emissions accounted for 10% of the 2019 aggregate cap of 8,731,175 MT CO2, i.e. the facility emitted 873,118 MT CO2 in 2019, the per auction allowance purchase limit on that facility in 2020 would be 873,118 MT. That facility would be limited to purchasing about 1.3 million allowances total in 2020, i.e. 150% of 873,118.

All Other Qualified Auction Participants – Non-regulated market participants should be subject to an account holding volume limit and per auction allowance purchase limit below that of regulated facilities.

MassDEP: Is there a need to protect certain information about auction bids or results from public release?

Dynegy: MassDEP should follow the example of RGGI, releasing a Market Monitor Report shortly after each CO2 allowance auction. The report should include aggregate information about the auction including the dispersion of projected demand, the dispersion of bids, and a summary of bid prices, showing the minimum, maximum, average and clearing price and the allowances awarded. MassDEP should not publish the volume of allowances purchased by the owner/agent of regulated facilities.

MassDEP: Are there any particular design elements that should be considered because of the number of regulated facilities and facility owners?

Dynegy: Our primary concern with the limited number of regulated facilities and facility owners is allowance market liquidity, i.e. the ability of regulated operators to have access to the allowances necessary for compliance at a price that reasonably reflects the marginal cost of CO2 abatement for the sector. We believe several of the suggested changes to the auction outlined in these comments will help promote market liquidity.

However, it is not a trivial exercise to design and implement a new market for emission allowances. The design and implementation of RGGI was a multi-year process that required refinement during each successive program review. In the meantime, regulated entities have the obligation to consumers and to their owners to produce and deliver electricity at a fair market price.

Therefore, during the period of time between the enactment of 310 CMR 7.74 and the first program review (no later than December 31, 2021), Dynegy recommends establishing an alternative compliance payment ("ACP") option for generators, allowing the covered entities to pay a set fee per ton of CO2 emissions, established as some multiple above an average market price of allowances (e.g. 1.2X average annual market price), rather than purchase and remit emission allowances. Generators should be limited in their use of the ACP option to some percentage of their annual emissions from the previous year. Any excess emissions attributable to use of the ACP could be accounted for by lowering the aggregate emission cap for the period between the first and second program review. MassDEP acknowledges the value of such a policy provision and includes this option for compliance with the finalized Clean Energy Standard.

Additional Considerations

The use of auctions to distribute allowances should be phased in between 2018 and 2022
Building on the concerns expressed in our response to the last MassDEP question regarding the initial implementation of a new emission auction and trading program, we believe it would be prudent for MassDEP to phase in the use of allowance auctions to distribute emission allowances from 2018 through 2021, the deadline for the first 310 CMR 7.74 program review.

MassDEP should not retire allowances not sold at auction
310 CMR 7.74 Section (6)(h)1h indicates that MassDEP "may periodically evaluate the auction program performance and may retire any allowances that were offered for sale by auction but were not sold." Dynegy recommends against this approach and supports rolling over any allowances not sold in a given auction into the next auction. Retiring unsold allowances represents an arbitrary tightening of the 310 CMR 7.74 emission cap.

The deadline for complying with the 3-1 allowance penalty for non-compliance should be after the first quarterly auction in a given year
There are various reasons why the owner of a regulated facility may miss the March 1 deadline to fully comply with the facility emission obligation from the previous year. We believe the 3-1 allowance penalty provides adequate incentive for operators to comply. In some cases however, a violation could arise from limited market liquidity or some extraneous event. As such, operators in violation should have one last opportunity to purchase allowances to cover their penalty in the first allowance auction of a given year. Given then that 310 CMR 7.74 allows for limited banking of allowances year to year, generators already have the ability to use allowances of varying vintages to meet annual and penalty compliance obligations.

Surety requirements should be commensurate with financial exposure
Dynegy supports 310 CMR 7.74 Section (6)(h)4b requiring bidders to provide financial surety in order to participate in allowance auctions. However, MassDEP should establish a surety requirement commensurate with the market exposure for each regulated facility. Such a requirement could be based on the facility-specific single auction purchase limits to be established in the revised 310 CMR 7.74 auction provisions.

MassDEP should permit unlimited banking of emission allowances
Finally, in order to provide regulated entities additional flexibility to manage compliance obligations, MassDEP should follow the lead of RGGI and permit unlimited banking of emission allowances. Banking of allowances does not compromise the environmental objectives of 310 CMR 7.74. Further, the 310 CMR 7.74 program review provisions provide MassDEP the opportunity to evaluate the implications of unlimited banking and to make changes as necessary on a periodic basis as per 310 CMR 7.74 Section (11)

Anne C. George
Vice President, External Affairs & Corporate Communications

October 16, 2017

Submitted via email: climate.strategies@state.ma.us

Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

To Whom It May Concern:

ISO New England Inc. (ISO) appreciates the opportunity to comment on the Massachusetts Department of Environmental Protection's (MA DEP) discussion document on allowance auctions pursuant to 310 CMR 7.74, *Reducing CO_2 Emissions from Electric Generating Facilities*.

The ISO filed comments on the proposed regulation on February 20, 2017 suggesting an auction for allocation of carbon emission credits was preferable to an administrative process. We are pleased that the MA DEP established an auction mechanism in the final regulation. As we stated in our earlier comments, "[a]n auction will allow market participants to reflect their private valuation for emissions credits while accounting for expected production, potential capital investments that could reduce emissions, future market conditions, and their risk tolerance. The auction would sell these credits to the set of market participants who value them most. This is an efficient outcome as it awards the credits to the resources that maximize the value of the credits, and allows the state to cost effectively meet its environmental objective."

In response to the questions posed by the MA DEP in the discussion document, the ISO offers the following comments:

- **Frequency of Auctions**: If the total allowances for a year are not auctioned all at once, but rather in multiple lots, it may make it more difficult for auction participants to determine their optimal bid price because they need to not only determine their willingness to pay for allowances, but they must also consider how allowance prices may change between lots (i.e., if they expect prices to be lower at a later auction, they should lower their bid price for the current auction). Use of an annual auction may be a simpler approach. Nevertheless, the ISO acknowledges that the Regional Greenhouse Gas Initiative, Inc. (RGGI) holds quarterly auctions and auction participants seem comfortable with that approach.
- **Auction Participants**: Broadening the eligibility requirements to allow participants beyond the covered facilities may reduce concerns about buyer-side market power in the auction. Furthermore, it may help to enhance liquidity in the secondary market. Based on these observations, the ISO recommends allowing other entities to participate.

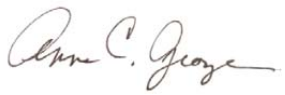
ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040-2841
413-540-4590
ageorge@iso-ne.com

- **Minimum Reserve Price**: It is unclear what the driver is for imposing a minimum reserve price in the auction, but such a provision could have unintended consequences on bidding behavior and market outcomes. If it is intended to protect against buyer-side market power, there may be other aspects of the auction design that better address this concern, e.g. broadening participants in the auction.
- **Release of Auction Information**: Generally, releasing more information about the clearing price and the participants that are awarded allowances will provide more transparent information to the marketplace, and therefore may help to facilitate bilateral transfers between participants during the commitment year. This will tend to help the region meet its carbon emissions objectives in an efficient manner.
- **Other Design Suggestions**: The MA DEP should consider the use of a market monitor to examine the competitiveness and efficiency of the market. The involvement of a market monitor will enhance the participants' and public's confidence in the allowance market. The market monitor's role would include making recommendations for changes to the market rules and identifying any attempts to exercise market power or otherwise manipulate market prices in the auction.

In addition to these specific comments, we acknowledge the comments of some participants regarding the benefits of a transition to an auction format for allowances. The ISO does not oppose the use of a transition. In fact, the ISO and regional market participants have used transitions in the past when implementing significant changes to market rules. Furthermore, since the covered facilities have already bid into the Forward Capacity Market and have taken on capacity supply obligations through the 2020-21 commitment period without factoring in the potential costs related to the new regulation, a transition to a full allowance auction would be prudent.

We appreciate the MA DEP's consideration of these comments as it considers the details of the allowance auction design.

Sincerely,



Anne C. George
Vice President, External Affairs and Corporate Communications

ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040-2841
413-540-4590
ageorge@iso-ne.com

10/14/17

Comment Related to 310 CMR 7.74 Auction Process

It is important that Electric Generators subject to 310 CMR 7.74 be provided Year-To-Date (YTD) statewide CO2 emissions on a real time basis. Without such information Generators will be operating blind during the latter half of the year, and could easily unintentionally generate CO2 emissions beyond the availability of allowances to cover.

The annual 7.74 statewide CO2 emissions allowance is basically a hard (not to exceed) Cap, as banking under this rule is very limited, and it appears that Generators will not be allowed to purchase future year allowances to cover any current year emissions. Moreover, the initial annual statewide CO2 Cap of 8.955 million metric tons is significantly below historical annual CO2 emission levels for this Sector – see attached CAMD Yr 2016 annual data, which indicates total CO2 emissions for this Sector in Yr 2016 was ~ 10.5 million metric tons. And the statewide CO2 Cap declines each year.

As far as I am aware, there is no means for a 7.74 Generator to determine cumulative statewide YTD CO2 emissions for their Sector, except at quarterly intervals thru the CAMD database. Consequently, except at the end of quarters, Generators will not have any reasonable way of knowing the Sector-wide rate at which CO2 emissions are being emitted, and more importantly, the remaining amount of emissions available within the Cap (how fast the remaining Cap is being depleted, or when it is entirely used up).

In my experience Generators buy a significant fraction of their Allowances after emissions have been accrued (to cover emissions beyond the allowances in their Compliance account). Up to now that approach has been feasible as there have always been available Allowances to purchase (although the costs were variable).

However, under 7.74 it is feasible, and not unlikely, that Generators could operate, on the expectation that sufficient Allowances remain, ignorant that the Statewide 7.74 Cap has already been exceeded. In this case, there simply would not be sufficient Allowances left thru Auction (or interparty sale) to cover emissions already emitted from the Generator Sector. This problem will exists irrespective of the timing of Auctions, simply because Generators are operating without any current information on how much other Generators have operated.

For example, suppose after the first 2 quarters of a Year, a Generator checks the CAMD Website and finds that cumulative YTD Statewide CO2 emissions have reached 60% of the Cap. Then a hot summer occurs, resulting in high dispatch levels for most Generators. Unable to determine how much of the Cap remains, and more importantly, when the entire Cap is depleted, a Generator has to guess blindly whether he can still operate. If they guess wrong, it will be impossible for all Generators to reconcile (cover emissions) at the end of the Year, no matter what price they are willing to pay. Moreover, the competition for Allowances could skyrocket prices, potentially making the already difficult situation imposed by 7.74 dramatically worse.

However, this situation could be significantly alleviated if real time statewide CO2 data were made available to all Generators on a real time basis. If actual CO2 emissions cannot be provided, sites could approximately track CO2 emissions emitted if statewide electrical generation data (MWhs) were

available on a daily basis from ISO. These daily values could simply be accumulated until the end of the quarter when updated CAMD Data is published. To estimate CO2 emissions from electrical generation, all that is needed is an historical average heat rate for this Sector, and the standard CO2 Emission Factor for Natural Gas, which I believe is the overwhelming fuel type for Massachusetts Generators.

Sincerely:

Bob Machaver

CALPINE CORPORATION

NYSE CPN

717 Texas Avenue, Suite 1000
Houston, Texas 77002

Submitted via email to climate.strategies@state.ma.us

October 16, 2017

Hon. Martin Suuberg
Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA02108

Re: Calpine Corporation's Comments on Massachusetts Department of Environmental Protection's Proposal on: Reducing CO_2 Emissions from Electricity Generating Facilities

Dear Commissioner Suuberg,

Calpine Corporation ("Calpine") submits the following comments on the Massachusetts Department of Environmental Protection's ("MassDEP") October 3, 2017 Stakeholder Discussion Document on implementation of emissions allowance auctions pursuant to 310 CMR 7.74: *Reducing CO2 Emissions from Electricity Generating Facilities*, which was finalized on August 11, 2017. Calpine submitted comments on the draft electric generating proposal on November 21, 2016 and on the proposed rule on February 24, 2017.

In its prior comments, Calpine opposed the use of an auction to distribute allowances under 310 CMR 7.74 given uncertainties related to operating a single-state environmental auction in the context of a regional, integrated power market. While the regulations have been finalized, we still believe that the auction is a mistake and that MassDEP should withdraw the auction provisions of the regulations and return to the allocation approach embodied in the draft. However, given that the regulations currently in effect provide for an auction, and without waiving its objections to those regulations, Calpine recommends that the auction be phased-in, in order to most effectively manage risks and uncertainty, particularly given that generators have already made capacity commitments to ISO-New England, rather than becoming fully effective as of January 1, 2019.

Given the unprecedented nature of the final rule, a transition period would allow market participants to better manage their operations in the context of ISO-NE tariff requirements and will better allow MassDEP to make any necessary mid-course corrections that might be needed to ensure that it is implemented as efficiently and cost-effectively as possible.

We also offer the following specific comments in response to the October 3, 2017 Stakeholder Discussion Document.

Any Auction Should be Held At Least Quarterly

Calpine supports frequent auctions to ensure price discovery and liquidity. The RGGI auctions are held quarterly and Calpine urges MassDEP to auction allowances at least as frequently as RGGI.

The Auction Should be Limited to Covered Entities
Participation should be limited to covered entities. The proposed single-state auction is simply not large enough to benefit from any third-party participation. Conversely, in this case third-party participation will likely increase reliability risks and potential price volatility in the market.

MassDEP Should Not Impose a Minimum Reserve Price
A minimum reserve price is not necessary because 310 CMR 7.74 will meet the GWSA targets by simply limiting the number of allowances auctioned. If MassDEP chooses to include a reserve price, it should be set only at a level that ensures that administrative costs are covered; it should not be set at a level that guarantees incremental revenue for the state.

The Auction Should Ensure Covered Entities Can Purchase a Sufficient Number of Allowances to Operate Units Reliably
The design of the auction should provide power plant operators an opportunity to purchase a sufficient number of allowances to maintain expected operations, while ensuring fair and open competition. Generators will value allowances based on their specific business plans and view of the power market and should be able to price and purchase allowances accordingly. Nonetheless, certain controls should be established to ensure an efficient and competitive outcome.

First, as discussed in the August 11 rule, it is appropriate to establish an auction-specific limit under which generators may purchase no more than 50% of the allowances offered in that auction.

Second, in order to ensure that generators are purchasing allowances only to cover expected operations, Calpine recommends imposing an annual limit under which individual generator purchases in any given calendar year are limited to no more than 10% above their original 2018 allocation (or some other similarly-representative historic benchmark). This limit, however, should apply only to purchases in the auctions; we do not see any need to impose limits on bilateral transactions/trading.

Calpine believes that these measures, combined with oversight from an independent market monitor, as discussed below, can help mitigate the risk that individual parties would over buy allowances.

Moreover, Calpine believes these measures should be adopted as an *alternative* to the banking limitations adopted in the August 11 rule (see below).

MassDEP Should Engage a Market Monitor and Ensure that it Has Full Access to Auction Details; Public Release Should Be Limited to Information Necessary for Price Discovery
Calpine recommends that MassDEP engage a market monitor, similar to the RGGI model, who would have access to all information associated with the program, and monitor both the auction and potential impacts on wholesale electricity markets. Given the relatively small size and other characteristics of this single-state market, independent market monitoring will be necessary to ensure the fairness and competitiveness of the auction and secondary allowance market, and provide timely warning to MassDEP if the auction is leading to unexpected, adverse outcomes in the auction or electricity markets.

The existence of a market monitor will allow an appropriate level of transparency to the public and to covered entities without the need to publicly disclose commercially-sensitive information. Information released to members of the public and covered entities should be limited to the following:

- Allowance prices of any auctioned allowances and allowances purchased on the secondary market
- The quantity of allowance accounts, including any intercompany transfers

All public information should be disclosed on an aggregate basis in order to protect commercially-sensitive, company-specific information.

The Auction Should Allow for Unlimited Banking

Calpine strongly opposes the proposed banking limit and MassDEP's plan to deduct allowances from each facility's allowance registry to manage the overall level of the bank. Calpine understands the need to ensure compliance with the required annually-declining cap but believes it is neither appropriate nor necessary to effectively penalize generators that may find themselves with excess allowances because of lower-than-expected operations due to unpredictable weather, unexpected maintenance outages, etc. This approach is extremely disruptive to business planning and market efficiency.

Calpine urges MassDEP to adopt the RGGI model of reducing future allowance budgets if deemed necessary and appropriate at the time of periodic program reviews, rather than deducting banked allowances from an individual generator's registry account, in order to meet the required annual decline in the cap. This will also ensure that early reductions will be incentivized, rather than penalized. As noted above, imposing auction-specific and annual limits on allowance purchases will help protect against any one entity banking an excess amount of allowances.

However, if MassDEP elects to impose the banking limits as outlined in the final rule, at a minimum, generators must be reimbursed for allowances that are withdrawn from their registry accounts.

Conclusion

We look forward to continuing to work with MassDEP in this process. Please do not hesitate to contact me at Steven.Schleimer@calpine.com or (713) 830-8923 if you have any questions or need any additional information.

Sincerely,

/s/

Steven S. Schleimer
Senior Vice President Governmental and Regulatory Affairs

cc: William Space
Beth Card