[October 4, 2012 Deliberations Notes of Chairman Welch]

Docket No. 2010-235 Statoil

Summary

I recommend that we decline to require Maine's T&D utilities to execute contracts reflecting the term sheet as proposed by Statoil. I also recommend, however, that we indicate in our order that our approval would be forthcoming if Statoil can provide contractual commitments that will ensure that if Statoil ultimately benefits from the pilot project, Maine will also benefit.

Before I go into detail in my reasoning, here in broad outline is the basis for my recommendation:

- While I believe that the Statoil proposal meets each of the minimum criteria for approval under Sec. A-6 of the law (Chapter 615, 124th legislation), the Commission has the obligation to determine, for each project, whether the interests of Maine as articulated by the legislature are sufficiently served.
    - I view the law's direction that we "may" approve such projects – rather than "must" or "shall" approve them – as a direction that we consider more than just technical compliance with the specific requirements of the statute, and that we also take into account the broader interests of Maine and its ratepayers.

- Standing alone – i.e. viewed in isolation from the possible spill-over benefits of such a project – the pilot in my view does not achieve the requisite balance between costs and benefits.
    - Very high price
    - The technology value of the project may be limited (the size in the pilot may not be optimal for a major offshore project, and to some extent the technology has already been tested)

    - Investment commitments, while significant, do not come close to convering amount paid by Maine ratepayers
    - As Statoil conceded (in its Sept. 17 letter):
        - "Neither Statoil nor the State would make this investment based on the expected financial returns from the pilot project alone."

- Even if – as is highly uncertain – major deepwater offshore wind development takes place in the Gulf of Maine, the Statoil proposal as submitted provides only a plausible expectation, but not in my view sufficiently high probability, that Maine will benefit from that development.

- The legislature concluded that *some* speculative investment of ratepayer dollars is appropriate. But it seems to me that to be faithful to the legislation, in circumstances where, as here, there is a substantial risk that nothing ever emerges to take advantage of the pilot, and the cost to customers is high, there should be at least some commitment by the proponent to share not only the benefits of the pilot itself but also of the benefits of the commercial activity and/or investments in a subsequent major offshore wind development that is facilitated by the pilot .
- As stated in the comments submitted by the University of Maine (8/29/12)
    - "The intent of the ocean energy legislation was to help financially underwrite the cost of the demonstration R&D program as long as there is a clear commitment and connection to a large scale farm in Maine…. The large Maine investment via this PPA must contractually lead to a full scale project that secures the economic opportunity in Maine."
    - In fairness to U Maine, in subsequent comments the University urged support for the Statoil Pilot, but it is worth noting that the focus of the later comments remained on the benefits that could flow to Maine if and when a much larger (e.g. 500 MW) project is built.

Let me turn to my view of the statutory conditions that must be met before we reach the question of whether the project provides sufficient benefits:

- The project meets each of the tests in A-G:

  A. Is for offshore wind
  B. Statoil is clearly well qualified, and, in fact, has shown high degree of professionalism throughout
  C. Statoil has "quantified" economic benefits of the pilot project
  D. Has the experience in deep water offshore wind and the potential to construct major projects
  E. Has demonstrated commitment to invest in manufacturing facilities (at least re pilot)
  F. Has taken advantage of fed support (some comments to contrary notwithstanding)

- Two things strike me about the list in the statute.

  - It isn't specific about the numeric relationship between costs and benefits
  - It clearly sees the "long term/big project" elements as important, both with respect to the ability to expand (D) and manufacturing investment (E)

Subsidy Cap

- Some commenters have raised issue concerning the level of subsidy required by the term sheet relative to the statutory cap. In my view, the term sheet falls within the statutory limit.

  - While under some estimates of future energy prices the subsidy could rise above the cap, this is true under any fixed price contract. I think our task is to evaluate whether, under most (if not all) reasonable assumptions concerning load and energy costs, the level of subsidy required by the contract would be compliant.

  - In this case, while it is clear that accepting the Statoil proposal would foreclose other projects receiving a subsidy under this statute, staff's careful analysis indicates that the statutory cap is not likely to be exceeded. Having said that, predicting energy (and REC and capacity) prices 20 years into future is fraught with danger, and from a "customer certainty" perspective (in terms of subsidy customer will pay), it might be better to fix the subsidy payment and not the price paid. Unfortunately, from developer's point of view, and also from hedge value point of view, fixing price is important. Thus we are left with some uncertainty about magnitude of subsidy, and our issue under statute is to reduce if not eliminate prospect of the subsidy exceeding the limit. I think in this case, while the issue is close, there is a sufficient likelihood that the cap will not be exceeded for us to conclude that the proposal is technically compliant in this respect.

  - I note, however, that if the term sheet is approved, the contract details would need to be ironed out, and, as we have seen elsewhere, financial issues – including the ability to keep the cost under the statutory cap – could emerge at that stage.

- One commenter (IECG) raised the issue of whether the term sheet could be approved consistent with Federal law, in particular the prohibition under PURPA of a state requirement that a utility buy energy at a particular price except under specified circumstances. While the question of the extent to which a state commission can command that a T&D utility execute a contract with a facility such as the Statoil facility contemplated here seems to me, after reviewing some of the relevant case law, somewhat unsettled, I do not base my recommendation on a conclusion that such a command would be preempted. While establishing wholesale rates in interstate commerce is clearly a FERC prerogative, the cases suggest that FERC works hard to avoid direct conflict with the implementation of state policies. For example, if the contract were viewed under PURPA, FERC has indicated considerable flexibility in determining what is "avoided cost." See FERC's holding in its Order Granting Clarification and Dismissing Rehearing in the CPUC case cited by IECG (EL 10-64-001, Oct. 21, 2010, at ¶29), in which FERC stated:

  - "[P]ermitting states to set a utility's avoided costs based on all sources able to sell to that utility means that where a state requires a utility to procure a certain percentage of energy from generators with certain characteristics, generators with those characteristics constitute the sources that are relevant to the determination of the utility's avoided cost for that procurement requirement."
  - As I read this, requiring the contract sought here for offshore wind, having established the "avoided cost" for such energy through an RFP process, might satisfy the FERC requirement that energy be sold at "avoided cost."

- Statoil's comments on this issue also raise an interesting, and perhaps not yet fully tested, argument. Statoil suggests that the amount of the payment by the T&D companies to Statoil is not so much a wholesale price for energy as it is a subsidy payment collected from T&D customers. The subsidy payments here, because they are collected through distribution charges, would have no impact at all on the wholesale market. The wind resource created in the pilot would be a price taker with or without the subsidy. Thus, the argument goes, the policies underlying FERC's concern over the impact on wholesale rates would not be implicated.
- Finally, even if the payment is considered a "wholesale rate," and thus subject to FERC exclusive jurisdiction, it might nevertheless make sense, if we were to agree that the term sheet should be approved under the Maine statute, to move forward to develop a contract, and either find a way in the contract to avoid the FERC preemption issue, or make the implementation of the contract subject to FERC's approval of the rates (following, for example, a successful application by Statoil for market based rate authority).

- While I thus don’t see federal law as a bar to the overall structure of the proposal, I expect that, if the project were approved, there would be some complex contract issue to resolve to avoid running into FERC preemption. But I do not base my recommendation on this concern.

(Stand-alone Value)

Before turning back to what I think is the fundamental question for us to decide – namely whether, when the long-term prospects for Maine are taken into account, the Statoil proposal makes sense – I want to review briefly the value to Maine of the pilot proposal standing on its own.

Viewed in isolation, the proposal would not warrant approval even though it technically satisfies each of the statutory criteria.

- The cost of the energy is very high – in the range of 5 times the current and likely future cost of energy. I do not think it is at all likely that this contract will have any significant hedge value against future electric energy prices.

- The proposal would soak up all the remaining subsidy for offshore wind and tidal energy projects. This in itself does not disqualify it – we aren't being flooded by alternative proposals – but it does suggest we exercise a degree of scrutiny to avoid foreclosing other, more beneficial or less expensive, projects.

- Statoil has made serious and in my view good faith efforts to commit to invest in Maine for the elements of the pilot, and has agreed that if the targets are not met, the contract can be terminated. Moreover, Statoil has committed to a modest investment in the UMaine offshore wind program.

    - Importantly, however, the investment commitment is at a level that is far below both the total project investment and the commitment of funds by Maine ratepayers that would be necessary under the proposal.

    - On the other hand, as Statoil and others point out, there are multiplier effects to any investment, and thus the dollar commitment (which is substantially less than $100 million) cannot be compared directly against the roughly $200 million nominal cost to ratepayers over the term of the contract.

Nonetheless, Statoil does not allege, and I do not believe it could show, that for the pilot itself, the economic benefits reach the level of the ratepayer contribution, whether those calculations are done in nominal or discounted dollars.

- On the level of committed investment, I was struck by the comments in favor of the proposal submitted by BIW. I recognize that the statute under which we review the Statoil proposal and the statute under which BIW received its tax forgiveness bring many different considerations into play. In those comments, however, BIW pointed to the value to Maine of the $3 million/year (total of $60 million) in tax forgiveness. In BIW's case, the commitments it gave in exchange for that forgiveness were substantial: a minimum of $200 MM in investment, and a commitment to maintain employment levels at 5000 jobs.

  - By contrast, in the proposal before us here, Statoil commits to investing 30% of its capital in Maine (with a good faith effort to reach 40%), and employ 150 Mainers during the peak construction period.

  - Without going into detail concerning the likely total capital investment, the Statoil commitments indicate an investment in Maine of substantially less than $100 M. In short, BIW got $60 MM and committed $200 MM; Statoil would receive $200 MM and commit less than $100 MM.

- Charles Colgan, on behalf of Statoil, indicates that the Pilot will produce between roughly 300 and 425 jobs (direct and indirect) in Maine during the two years of peak construction, and between 20 and 30 such jobs during the other years. I agree that there are, especially for the construction period, tangible benefits of the Pilot.

- But if jobs <u>added</u> by the Pilot are to be considered, so should jobs <u>lost</u> due to the <u>cost</u> of the Pilot:

    - The analysis done by London Economics for the Commission concerning the economic impacts of the RPS suggested that a $1 million/year decrease in annual spending by the residential sector (which is a plausible result of a $1 million increase in price of electricity), would result in a loss of 11 jobs. Thus, based on the LEI study, the roughly $10 million per year cost of this pilot would (viewed by itself) result in the loss of more than 100 (LEI RPS study at p. 61). Put another way, even if the cost of the Pilot for each individual customer is small, the cumulative impact can be significant.

    - While the roughly $10 M/year subsidy required by Statoil would not all be borne by residential customers, it seems reasonable to assume that the job loss figure would be comparable even if the subsidy is spread over additional classes.

- I acknowledge, based on the extensive comments received in this case, that there is broad support, especially from the business and environmental communities, for the project.
    - I can understand the attraction of bringing a very sophisticated and well regarded global energy company to Maine.
    - I note in this regard, however, that much of the support was based at least in part on the benefits that would flow to Maine if the pilot leads to major offshore wind projects in which Maine could play a part.

Because I do not believe that the project standing alone (i.e. without reference to the possible long term value to Maine of a major offshore project) warrants approval, we must look beyond the project itself to see if, by virtue of the creation and operation of the Statoil pilot project, Maine stands to achieve the a sufficient level of the kinds of benefits contemplated by the statute. To quote the statute's preamble, will the project

> "position the state to capture…for the people of the State [the benefits of using offshore wind resource]."

The statute does point to a variety of other benefits:

- Energy independence and security
- Hedge against higher fossil fuel prices
- Meeting the state's RPS requirements
- Reduction in state's dependence on oil

I do not find any guidance for our review of this project in these other possible benefits. I think the value of this project as a hedge against higher fossil fuel costs is likely to be small in light of the developments in the natural gas market since the legislation was enacted. Similarly, the pilot itself is too small, and any major offshore project too big, to be significant with respect to meeting Maine's RPS requirements. As for the state's dependence on oil, obviously any renewable project (and for that matter natural gas projects) can have some beneficial effect – if it has sufficiently attractive economic characteristics to wean people off oil. Again, I do not believe that the Statoil project as it stands can be viewed as a significant contributor to that objective.

More relevant here, in my view, is that there appears to be strong expectation that projects far larger than the pilot will emerge as a result of the pilot (or at least be facilitated by it), and it is in those larger projects that the real value to Maine lies.

Thus, for me, the crucial question is whether this project has a sufficient connection to a sufficiently likely much larger offshore wind development; and whether that larger project, in turn, has a sufficient probability of bringing substantial benefits to Maine.

Another way to phrase this basic question is: How much risk should Maine's ratepayers take if they are investing in the prospect of major economic benefits of a major offshore wind development?

I think Statoil's counsel set up the issue well (9/17/12 letter at page 3)

> "The legislature and Statoil both recognize that the real return for this R&D investment is the tremendous opportunity – not the certainty – that the pilot project will lead to a major commercial scale development of floating wind in the Gulf of Maine."

I believe we have a responsibility to judge whether that opportunity is a realistic one, and, more specifically, whether there is a sufficient (but not necessarily ironclad) connection between the project in which Maine customers are being asked to invest and benefits to Maine flowing from a major commercial scale offshore wind development.

There are several major risks to that connection. For me these fall into three categories:

1. The Statoil project operates successfully, even showing progress towards reducing costs for commercial scale development, but a big project is never built off Maine. That could occur for a variety of reasons, including:

    - Costs don't come down enough to be grid competitive in the NE market
        1. The cost of transmission makes the resource uncompetitive
        2. Alternatives (e.g. gas, imports, DR, EE) stay cheap
        3. MA/CT reduce their RPS requirements, thus reducing REC values
    - Siting major projects in the Gulf of Maine becomes impossible

The pilot may be helpful in addressing some portion of this risk (e.g. cost of commercialization, siting), but even completely successful pilot cannot remove all. In particular, nothing in term sheet commits Statoil to anything at all in ME if Statoil takes its expertise gained here elsewhere.

2. Pilot isn't successful – i.e. doesn't show that Statoil approach is commercially viable

   - There are many designs competing for offshore wind
   - If Statoil design isn't the one (or one of) that emerges, the extent of transferability of experience, including experience gained by ME partners and contractors, isn't clear
   - Lowers the likelihood of a major offshore wind project nearby

3. Even if pilot is successful, and major wind development does take place in Gulf of Maine, benefits of that development may not come to Maine.

   - Since demand for power and RECs is in MA and CT (not Maine) for the size project (at least 500 MW but, according to UMaine, more likely 4-5000 MW) that would provide major economic benefits to Maine, there is risk that the "sink" states would insist on much and maybe most of construction, design and transport be located in those states.
   - Maine's proximity to good wind suggests that <u>some</u> would stay, but very uncertain how much.

I acknowledge the risk that if we do not finance this project, Maine might lose the opportunity to participate in a substantial way in a major offshore wind development or that without the Statoil project, the likelihood of any such project being developed will be significantly reduced or eliminated. This risk may, however, be modest:

- If offshore wind hold the potential for supplying New England's energy needs, I'm not sure we should assume that investors will not develop that potential regardless of whether the technology favored by Statoil is proven in Maine or elsewhere
- The wind is not going anywhere, and neither are the port facilities in Maine which would be close to the offshore wind resource. This suggests that Maine would likely get some benefit of a major offshore project regardless of whether we fund this particular Pilot.
- We would, I agree, lose some degree of expertise, familiarity and training. But is seems fair to ask whether, if a major project does come along, those things could not be developed and exploited for a more modest price tag.

Conclusion and possible additions that could change that conclusion:

On balance, I find an unacceptably high risk that no, or very little, benefit to Maine will accrue from major projects linked in some way to this pilot under the Statoil proposal as it now stands. For me, therefore, the evidence would clearly support a decision by the Commission to exercise its discretion to refuse to require the T&Ds to contract with Statoil.

On the other hand, I think that we could, if Statoil were willing to do so, shore up the connection between the pilot and substantial benefits to Maine to a degree sufficient for me to recommend moving forward.

I recognize that some of the risk elements concerning the future development of major offshore wind projects – for example, natural gas prices staying low, cost of metals on the components high, etc. – are outside the control of Statoil. Moreover, I fully understand Statoil's reluctance to commit to investment levels in Maine for projects that may never be built.

On the other hand, there are at least two areas where Statoil could make additional commitments. Firm contractual and enforceable commitments along these lines could allow me to conclude that the pilot should go forward.

- First, Statoil could commit that, to the extent it has any involvement in a major offshore wind development in the waters off NE, Statoil will invest in Maine a substantial (perhaps 30%?) portion of the capital it invests in that larger project; and also commit to employment targets proportionate to the size of Statoil's interest.
    - Statoil has proposed to take some actions which could increase the chances that Maine could take advantage of a major offshore wind development: it has committed to prepare a business case for such a development, prequalify suppliers, profile suppliers, and give "access" to

the technology. There is no doubt that these are good faith attempts to address concerns about the link between the pilot and benefits to Maine that could flow from a larger project. On balance, however, I do not find these to be sufficient to tip the scales in favor of a conclusion that the <u>potential</u> benefits outweigh the <u>certain</u> costs. All of these items are little more than the natural outflow of any pilot, and while they may have some value, they do not reflect the kind of commitment to a long term partnership that, in my view, would justify the investment Maine ratepayers are being asked to make.

- Second, Statoil could commit that, if it is involved financially in a major offshore project anywhere in the world that makes use of the information and experience gained in the pilot, Statoil would – either through investment and employment commitments or a percentage royalty – provide a return to Maine's ratepayer "investors" "of and on" the money invested. For example (and without suggesting that this is the only structure that I would find attractive), something along the lines of "royalty based financing" could be developed:

  - If Statoil realizes revenue from the commercialization of deep-water, floating wind technology, either through licensing fees or revenues from a Statoil-developed project anywhere in the world (not just the Gulf of Maine), Statoil will provide a credit against contract payments in an amount equal to a modest share of the revenues received;
  - The obligation of Statoil to provide the credit would survive the term of the contract and thus, upon the expiration of the contract term, the royalty obligation would be turned into an obligation to make payments to the T&D utilities (with, perhaps, some cap on the total payment);
  - Such payments could flow back to ratepayers in a manner to be determined by the Commission at a later point.

- There may be other approaches that could establish Statoil's commitment to ensuring that the people of Maine who are being asked to provide a subsidy to Statoil in the pilot can share in the value created by the project, if Statoil is successful in using the experience of the pilot project for commercial gain in larger projects. Indeed, with Statoil's global reach and involvement in a variety of energy markets, there could be many sources of value that could be brought into play to achieve a better balance.
- I think a proposal <u>could</u> be developed that would establish a genuine balance of opportunity and interest between Maine, which has a strong policy in favor of exploring offshore renewable energy opportunities but is also severely economically challenged by energy costs, and Statoil, which has developed important expertise and a global reach and which could benefit from experience in one of the premier offshore wind resources in the world.
- In closing, it is not easy to turn away major investors who find Maine an attractive place to test their products, and I do not make my recommendation lightly. On the other hand, by giving the PUC the discretion – rather than the obligation – to spend Maine customers' money to support pilot projects, I believe we must assess not only whether the pilot meets the proponent's objectives and requirements, and not only whether the project is technically compliant with the law, but also whether there is a <u>sufficient</u> link between Maine's investment, which in this case is in the order of $10 million a year for 20 years, and substantial net benefits to the state and its citizens. Without the additional commitments along the lines I have described, I cannot conclude that we should approve the proposal before us.