

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

IN RE: REVIEW OF POWER PURCHASE AGREEMENT :  
BETWEEN THE NARRAGANSETT ELECTRIC COMPANY d/b/a : DOCKET NO. 4574  
NATIONAL GRID AND COPENHAGEN WIND FARM, LLC. :

**REPORT AND ORDER**

**I. Background**

Each year, National Grid is required to solicit proposals for long-term contracts for the purchase of capacity, energy, and attributes from newly developed, renewable energy resources.<sup>1</sup> This requirement, known as the Long-term Contracting Standard, began in 2010 and continues until the total capacity of National Grid’s contracts with newly developed renewable resources reaches 90 MW.<sup>2</sup> Pursuant to this requirement, on August 3, 2015, National Grid submitted for review and approval a long-term contract executed with Copenhagen Wind Farm, LLC. Prior to executing this contract, National Grid had met 78% of the 90 MW requirement.<sup>3</sup> In selecting the Copenhagen contract, National Grid has now satisfied 103.8% of the minimum long-term contract requirement.<sup>4</sup>

**II. Power Purchase Agreement between National Grid and Copenhagen Wind Farm, LLC.**

National Grid filed an executed copy of the Power Purchase Agreement (PPA), as well as the prefiled direct testimony of Corinne DiDomenico, explaining the terms and provisions of the

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<sup>1</sup> R.I. Gen. Laws §39-26.1-3.

<sup>2</sup> The 90 MW requirement must include 3 MW from solar or photovoltaic projects located in the state of Rhode Island. R.I. Gen. Laws §39-26.1-2 and R.I. Gen. Laws §39-26.1-3. National Grid cannot be required to exceed the 90 MW requirement but may voluntarily do so, subject to Commission approval. R.I. Gen. Laws §39-26.1-3(c)(1).

<sup>3</sup> Direct Testimony of Corinne M. DiDomenico at 5; [http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA\(8-3-15\)](http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA(8-3-15)).

<sup>4</sup> *Id.* at 6.

PPA.<sup>5</sup> The PPA is a fifteen-year contract for National Grid to purchase energy, capacity, and renewable energy certificates (RECs) from Copenhagen Wind Farm, LLC. The Copenhagen Wind Farm is a 79.9 MW, wind-powered, electric generation project currently under development in Denmark, New York.<sup>6</sup> The contract is subject to a number of construction, permitting, and financing conditions, known as critical milestones, the most notable of which is a commercial operation deadline of December 31, 2017.<sup>7</sup> According to the PPA, National Grid will purchase energy and RECs from Copenhagen Wind Farm, LLC at the rate of \$28.75/MWh and \$50.00 per REC, respectively, subject to a 2% escalation rate.<sup>8</sup> National Grid estimated the price of the Copenhagen contract, over the life of the contract, to be approximately \$62 million below the market forecast for energy and RECs on a net present value basis.<sup>9</sup>

### **III. Testimony of Copenhagen Wind Farm, LLC**

Robert Crowell and John Marchand of EDF Renewable Energy, Inc. filed written testimony on September 11, 2015.<sup>10</sup> In his capacity as Vice-President of Development at EDF Renewable Energy, Inc., holding company of Copenhagen Wind Farm, LLC, Mr. Crowell is responsible for obtaining land control, managing public relations, securing environmental and technical studies, coordinating wind resource analysis, and oversight of all permitting.<sup>11</sup> Mr. Crowell discussed his extensive experience developing, operating, and maintaining wind farms in

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<sup>5</sup> Corinne DiDomenico is Manager of Environmental Transactions for the Energy Procurement Organization at National Grid. Direct Testimony of Corinne DiDomenico at 1.

<sup>6</sup> Copenhagen PPA at 60; [http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA\(8-3-15\)](http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA(8-3-15)); Testimony of Robert Crowell at 3; [http://www.ripuc.org/eventsactions/docket/4574-Copenhagen-Crowell\\_9-11-15.pdf](http://www.ripuc.org/eventsactions/docket/4574-Copenhagen-Crowell_9-11-15.pdf).

<sup>7</sup> Copenhagen PPA at 18; [http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA\(8-3-15\)](http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA(8-3-15)).

<sup>8</sup> *Id.* at 73.

<sup>9</sup> Testimony of Corinne M. DiDomenico at 17; [http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA\(8-3-15\)](http://www.ripuc.org/eventsactions/docket/4574-CopenhagenPPA(8-3-15)).

<sup>10</sup> Prefiled Direct Testimony of Robert Crowell at 1; John Marchand is Vice-President of Valuations and Transactions at EDF Renewable Energy, Inc. Pre-Filed Direct Testimony of John Marchand at 1.

<sup>11</sup> Testimony of Robert Crowell at 2.

the United States, Canada, and Mexico.<sup>12</sup> He reported on the status of various local and federal permits for the Copenhagen Wind Farm, including an Individual Take Permit from the U.S. Fish and Wildlife Service to address the potential risk of harm to federally endangered bat species.<sup>13</sup>

John Marchand explained various provisions of the PPA, including regulatory obligations, energy transactions, and construction financing related to the Copenhagen Wind Farm. Construction financing of the Copenhagen Wind Farm will come from EDF Renewable Energy affiliate EDF Energies Nouvelle.<sup>14</sup> All other financing of the wind farm will come from monetization of the federal Production Tax Credit.<sup>15</sup> Mr. Marchand expressed confidence in identifying tax equity investors for the wind farm, noting considerable experience in this area, having raised more than \$2.8 billion in tax equity financing in years 2012 through 2014.<sup>16</sup>

#### **IV. Memorandum of the Division of Public Utilities and Carriers**

On September 2, 2015, the Division of Public Utilities and Carriers (Division) filed a memorandum recommending approval of the Copenhagen Wind Farm PPA, subject to an amendment. The Division's approval was conditioned on the Company amending the definition of Delivery Point in the PPA. The Division pointed out that the definition of Delivery Point was potentially ambiguous to the extent that it referred to a physical bus located in Newburgh, New York, which is not within the ISO-NE control area. One of the Division's recommendations was to change the definition of Delivery Point to reflect a physical bus located within the ISO-NE control area, and clarify that energy settled in the ISO-NE Settlement Market System is deemed to

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<sup>12</sup> Id. at 8.

<sup>13</sup> Id. at 4.

<sup>14</sup> Testimony of John Marchand at 10; [http://www.ripuc.org/eventsactions/docket/4574-Copenhagen-Marchand\\_9-11-15.pdf](http://www.ripuc.org/eventsactions/docket/4574-Copenhagen-Marchand_9-11-15.pdf).

<sup>15</sup> Id.

<sup>16</sup> Id.

be delivered.<sup>17</sup> National Grid adopted this recommendation in a subsequent amendment to the PPA.<sup>18</sup>

The Division noted for informational purposes that the energy forecast used in the Company's market analysis was dated August 2014. The Division performed an internal market analysis using a more current energy forecast and concluded, based on the updated forecast, that the Copenhagen PPA is projected to be \$32 million below market prices over the life of the contract on a net present value basis.<sup>19</sup> The updated market analysis did not alter the Division's recommendation to approve the PPA despite the lower below-market estimate yielded by the more current energy forecast.

## **V. Hearing and Decision**

A hearing was held on October 29, 2015 wherein the parties presented their witnesses for questioning. Division consultant, Richard Hahn, explained why a more recent market analysis of the Copenhagen PPA pricing differed by roughly \$30 million from the Company's analysis performed in August of 2014. Mr. Hahn explained that the main reason for the Division's lower below-market estimate was a decline in energy prices since the time of the Company's analysis in August of 2014.

The Commission found that the Copenhagen Wind Farm PPA met the requirements of the Rhode Island General Laws. Specifically, the Commission found that the Copenhagen PPA is commercially reasonable; the requirements for the annual solicitation have been met; and the Copenhagen PPA is consistent with the purposes of the Long-Term Contracting Standard, which

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<sup>17</sup> Memorandum of Richard Hahn and Carrie Gilbert at 4-5 (09/04/15); [http://www.ripuc.org/eventsactions/docket/4574-DPU-Hahn-Memo\\_9-4-15.pdf](http://www.ripuc.org/eventsactions/docket/4574-DPU-Hahn-Memo_9-4-15.pdf).

<sup>18</sup> First Amendment to Power Purchase Agreement (10/08/15); [http://www.ripuc.org/eventsactions/docket/4574-NGrid-1stAmend-PPA\(10-8-15\).pdf](http://www.ripuc.org/eventsactions/docket/4574-NGrid-1stAmend-PPA(10-8-15).pdf).

<sup>19</sup> Memorandum of Richard Hahn and Carrie Gilbert at 6 (09/04/15); [http://www.ripuc.org/eventsactions/docket/4574-DPU-Hahn-Memo\\_9-4-15.pdf](http://www.ripuc.org/eventsactions/docket/4574-DPU-Hahn-Memo_9-4-15.pdf).

include stabilizing long-term energy prices, enhancing environmental quality, and providing direct economic benefit to the state of Rhode Island. Based on these findings, the Commission voted unanimously to approve the Power Purchase Agreement between National Grid and Copenhagen Wind Farm, LLC, as amended on October 8 and October 28, 2015.

Accordingly, it is hereby

(22209) ORDERED:

The Power Purchase Agreement between the Narragansett Electric Company d/b/a National Grid and Copenhagen Wind Farm, LLC, filed August 3, 2015 and amended October 8, 2015 and October 28, 2015, complies with §39-26.1 of the Rhode Island General Laws, and is therefore approved.

EFFECTIVE AT WARWICK, RHODE ISLAND ON OCTOBER 29, 2015 PURSUANT TO A BENCH DECISION. WRITTEN ORDER ISSUED NOVEMBER 6, 2015.

PUBLIC UTILITIES COMMISSION



Margaret E. Curran, Chairperson

Paul J. Roberti, Commissioner

Herbert F. DeSimone, Jr., Commissioner

**Notice of Right of Appeal:** Pursuant to R.I. Gen. Laws § 39-5-1, any person aggrieved by a decision or order of the PUC may, within 7 days from the date of the Order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or Order.