

February 13, 2014

**Via Electronic Filing**

Hon. Kathleen H. Burgess, Secretary  
New York Department of Public Service  
Three Empire State Plaza, 19<sup>th</sup> Floor  
Albany, NY 12223-1350

**Re: Case 12-E-0577 – Proceeding on Motion of the Commission to Examine Repowering Alternatives to Utility Transmission Reinforcements – Term Sheet Agreement between National Grid and Dunkirk Power LLC Regarding Dunkirk Generation**

Dear Secretary Burgess,

Pursuant to the Notice of Filing Deadline issued December 23, 2013, Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or the “Company”) hereby submits the February 13, 2014 Term Sheet Agreement (“Term Sheet”) between National Grid and Dunkirk Power LLC (“Dunkirk”) relating to the addition of natural gas capability at Dunkirk. The Term Sheet is included as Attachment 1 to the accompanying Statement of National Grid in Support of Term Sheet Agreement (“Statement in Support”). The Statement in Support describes the Term Sheet and sets forth the basis for its approval. The Statement in Support also describes the Company’s allocation and recovery proposal for costs it would incur under the agreement described in the Term Sheet.

The agreement set forth in the Term Sheet would enable National Grid to continue to provide reliable electric service in western New York and would provide other substantial reliability and economic benefits. The Company believes that the benefits provided by the agreement outweigh the costs that will be incurred if the agreement is executed. The agreement would also promote other public policy interests important to New York State, including stabilizing local tax revenues and supporting local employment.. For the reasons described in the Statement in Support, the Company respectfully requests that the Commission approve the Term Sheet and authorize the Company to enter into a formal contract with Dunkirk to implement the agreement described therein.

Please contact the undersigned if you have any questions regarding this filing. Thank you for your attention to this matter.

Respectfully submitted,

/s/ Carlos A. Gavilondo  
Carlos A. Gavilondo

cc: Active parties (via electronic delivery)

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

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**Proceeding on Motion of the Commission  
to Examine Repowering Alternatives to  
Utility Transmission Reinforcements**

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**Case 12-E-0577**

**STATEMENT OF  
NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID  
IN SUPPORT OF TERM SHEET AGREEMENT**

Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or “Company”) hereby submits this Statement in Support of the Term Sheet Agreement (“Term Sheet”) dated February 13, 2014 by and between the Company and Dunkirk Power LLC (“Dunkirk”) (individually, a “Party” and collectively, the “Parties”). The Term Sheet is the culmination of an evaluation undertaken pursuant to the *Order Instituting Proceeding and Requiring Evaluation of Generation Repowering*, issued January 18, 2013 (“January 18 Order”) by the New York Public Service Commission (“PSC” or “Commission”). Under the Term Sheet, National Grid will pay Dunkirk \$20.41 million per year for ten years (\$150 million net present value (“NPV”)) and Dunkirk will add gas-fired capability to electric generating units 2, 3 & 4 (nominally 435 MW) and operate such units for ten years commencing approximately September 1, 2015. The agreement reflected in the Term Sheet allows National Grid to continue to provide reliable electric service to customers in western New York, and would enable the creation and retention of significant economic benefits in the area. Having generation operating at Dunkirk also is projected by the NYISO to mitigate future congestion in western New York and provide beneficial market price effects. Further, adding natural

gas capability to Units 2, 3 & 4 could produce environmental benefits, including reducing constraints on production of renewable hydroelectric generation in western New York.

The Term Sheet was developed by the Parties in response to the Commission's December 23, 2013 Notice of Filing Deadline, which directed the Company to file the terms of the proposed agreement between National Grid and Dunkirk that was announced December 15, 2013 by Governor Andrew M. Cuomo. The Term Sheet sets out in detail the Parties' understanding of how major elements of the agreement between them would be implemented over the contract period, and provides the basis upon which the Parties would work to complete a final contract. Because it promotes the public interest and is consistent with New York State public policy, the Company respectfully requests that the Commission approve the Term Sheet.

#### **I. Background**

On March 14, 2012, Dunkirk's parent company, NRG Energy, Inc. ("NRG"), filed notice with the Commission of its intent to mothball the Dunkirk facility no later than September 10, 2012. Studies performed by National Grid determined that closure of Dunkirk would result in unacceptable reliability conditions until transmission reinforcements to address those impacts could be placed in service. Based on its analyses, the Company determined that Dunkirk Units 1 & 2 were needed until certain near-term transmission reinforcement projects could be completed; and following the near-term reinforcements, one of the 115 kV-connected units was needed until permanent solutions could be implemented. The Company and Dunkirk therefore entered into an interim reliability support services ("RSS") agreement to keep Dunkirk Units 1 & 2 on-line for the period September 1, 2012 – May 31, 2013. In addition, following a

competitive evaluation process, the parties entered into a second RSS agreement to keep Unit 2 on-line for the period June 1, 2013 – May 31, 2015.

In fall 2012, Governor Cuomo’s Energy Highway Task Force released the New York Energy Highway Blueprint (“EHB”). The EHB describes a four-part strategy for meeting the State’s energy goals and objectives:

- Expand and strengthen New York’s statewide energy system
- Accelerate construction and repair aging infrastructure
- Support clean energy
- Drive technology innovation

To promote the strategy of supporting clean energy, the Energy Highway Task Force recommended that the Department of Public Service direct affected utilities to analyze potential power plant retirements and focus “on the opportunity to repower the subject plants as an alternative to closure or system upgrade, where a plant is needed for reliability reasons.”<sup>1</sup> The EHB Report stated such analyses should consider economic development, environmental and customer impacts, and it specifically identified the Dunkirk plant as one for which repowering should be considered.<sup>2</sup>

The Commission responded to the EHB directive with the January 18 Order. Under the January 18 Order, National Grid was required to evaluate the “relative costs and benefits of repowering the plants at their existing sites, and compare those costs and benefits to the costs and benefits of alternative transmission upgrades over the long term.” The Commission required the evaluation to consider:

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<sup>1</sup>New York Energy Highway Blueprint (2012), accessible at: <http://www.nyenergyhighway.com/PDFs/BluePrint/EHBPPPT/> (“EHB Report”), p. 77.

<sup>2</sup> In addition to recommending repowering evaluations, the EHB Report also noted that several proposals were advanced in the 2012 New York State legislative session to try to keep upstate coal-fired generation on-line to protect jobs and tax revenues in local communities. EHB Report, p. 78. The Report recommended that agencies including the Department of Public Service and Empire State Development consult to develop plans to mitigate impacts on communities from potential plant closures.

- Reliability
- Costs
- The environment
- The economy (*e.g.*, temporary and permanent jobs, economic development, and tax revenue)
- Electric market competitiveness
- Any other factors that should be considered in weighing the costs and benefits of the proposed solutions

Subsequent to the January 18 Order, the State enacted legislation articulating its policy on electric generation repowering. That law stated in part that:

Repowering existing power generation facilities can produce significant benefits in terms of enhanced system reliability, electric market competitiveness, and emissions reductions. Retiring power plants that are not repowered may leave behind abandoned or underutilized land that would negatively affect surrounding communities and impede economic development. In summary, it is in the public interest to develop clean power generation near energy demand to meet the needs of ratepayers, support local and state tax revenue stability, promote economic opportunity, and enhance the state's environment.<sup>3</sup>

On March 26, 2013, in response to a request for proposal (“RFP”) from National Grid, NRG submitted a proposal consisting of three options for continuing generation at Dunkirk:

- Option 1—A new 422 MW combined cycle gas turbine and the addition of natural gas-firing capability to Dunkirk Unit 2
- Option 2—Addition of natural gas-firing capability to Dunkirk Units 2, 3 and 4
- Option 3—Installation of 285 MW of new gas-fired peaking units

In its RFP response, NRG described several anticipated benefits associated with its proposed options.

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<sup>3</sup> N.Y.S. L. 2013, ch. 57, Part Y (March 29, 2013). The law also acknowledged and codified the January 18 Order.

On May 17, 2013, National Grid submitted an evaluation of the proposed repowering and refueling options as compared to potential transmission solutions.<sup>4</sup> On June 5, NRG submitted supplemental comments in response to National Grid's evaluation. On July 15, 2013, the Commission hosted a public statement hearing on the campus of SUNY Fredonia in Fredonia, New York, which was very well attended by members of the community, elected and appointed officials, business leaders and others.

On August 16, National Grid and NRG submitted supplemental comments in accordance with the schedule announced at the July 15 public statement hearing. The Company's August 16 comments summarized its May 17 Evaluation and also addressed other issues raised since that evaluation was filed. NRG's August 16 submission included a presentation by the NYISO dated August 15, 2013 that described the July 15-19, 2013 heat wave that affected the northeast, including New York State.<sup>5</sup> Among the NYISO's key operations observations was that the mothballing of Dunkirk had significantly changed power flows and resulted in significant transmission constraints and congestion in western New York.

On August 23, 2013, the Commission indicated its intention to convene a technical conference to consider the congestion issues identified in NRG's August 16 submission as well as load forecast issues identified in National Grid's August 16 filing.

On September 5, National Grid filed its 2013 area study results for western New York ("2013 Study"). The 2013 Study reflected the effect of updated area load forecasts and identified additional transmission system projects not called out in prior studies that

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<sup>4</sup> "May 17 Evaluation."

<sup>5</sup> NYISO presentation, Summer Operations: July 15-19, 2013 Heat Wave (Aug. 15, 2013) ("NYISO Heat Wave presentation").

would be needed if Dunkirk were shut down. The 2013 Study also indicated that certain transmission reinforcements identified in previous studies as needed if Dunkirk were closed would be required regardless of whether Dunkirk closed or remained on-line.

On October 31, 2013, Department of Public Service Staff hosted a technical conference to discuss the non-confidential aspects of the NYISO's congestion analyses and National Grid's most recent system needs assessment. At the technical conference representatives from NRG, National Grid and the NYISO presented information regarding congestion, production costs, reliability needs and cost estimates. The materials presented at the technical conference, supplemented to provide additional information requested at the conference, were filed in this proceeding.

On December 15, Governor Cuomo announced that National Grid and NRG, with assistance and facilitation from Department of Public Service Staff, had reached an agreement in principle intended to keep the Dunkirk plant open by adding natural gas capability to Units 2, 3 & 4 at the plant. The agreement in principle reflects a solution that enables National Grid to continue to deliver reliable electric service to customers and balances a variety of interests in a manner that is in the public interest.

By notice issued December 23, 2013, the Commission directed National Grid to file the terms of the proposed agreement with NRG by January 30, 2014, along with supporting documentation. By letters dated February 3 and 7, 2014, the Secretary granted extensions of the filing deadline to February 13, 2014.

## **II. February 13, 2014 Term Sheet between National Grid and Dunkirk**

A copy of the February 13, 2014 Term Sheet between National Grid and Dunkirk is included as Attachment 1. Under the Term Sheet, Dunkirk would add natural gas-

firing capability to Units 2, 3 & 4. The gas addition is expected to be completed in time to enable commercial operation of the first refueled unit by approximately September 1, 2015. National Grid would make payments totaling \$20.41 million per year to Dunkirk for ten years (\$150 million NPV).<sup>6</sup> The Company would not acquire any interest in the Dunkirk plant. Nor would National Grid purchase or take title to energy, capacity or any other NYISO market product produced at the plant.

Applying the evaluation criteria in the January 18 Order, the agreement reflected in the Term Sheet serves the identified reliability needs and provides several other benefits.

A. Reliability

The shutdown of the Dunkirk plant would produce unacceptable reliability impacts until permanent transmission upgrades could be deployed. Adding natural gas capability to the plant and keeping it on-line addresses those reliability impacts.<sup>7</sup> Keeping the plant on-line also provides National Grid flexibility to defer some transmission reinforcements that otherwise would be needed for reliability if Dunkirk were to close. The estimated total costs of the transmission reliability investments range from \$33.7 million to \$68.3 million.<sup>8</sup>

Because the current reliability support services agreement between the Company and NRG expires May 31, 2015, and some longer-term transmission upgrades to address

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<sup>6</sup> Dunkirk's obligations to execute a formal agreement implementing the Term Sheet are contingent upon confirmation of the details regarding the NPV \$15 million assistance from the appropriate agency in form and substance acceptable to Dunkirk. National Grid's payment and other obligations under the Term Sheet do not arise absent such formal agreement.

<sup>7</sup> May 17 Evaluation, p. 7.

<sup>8</sup> See Attachment 2, Capital Costs, Carrying Charges and NPV of Transmission Solution Projects ("Updated Transmission Project Estimates").



reliability issues from a Dunkirk shutdown were not planned to be in place until 2017, refueling the Dunkirk units mitigates potential reliability risk that may arise between 2015 and 2017 such as reliability impacts that may result from other generator shutdowns in the region.

Finally, having Dunkirk Units 2, 3 & 4 on-line will provide greater operational flexibility at the Niagara Power Project and allow for more power imports from the Ontario control area (IESO), which would provide the NYISO increased opportunity to call on these resources for economic or emergency energy during high load conditions.<sup>9</sup>

#### B. Costs

As seen in Attachment 2, transmission capital costs to address the reliability needs from a shutdown of the Dunkirk plant range from \$33.7 million to \$68.3 million, which would produce an approximate annual revenue requirement of \$5.6 million to \$11.4 million, or \$37.7 million to \$76.4 million on a 10-year NPV basis.<sup>10</sup> The cost to Niagara Mohawk customers of the agreement to refuel Dunkirk Units 2, 3 & 4 is \$20.41 million annually for ten years (\$150 million 10-year NPV).<sup>11</sup> In addition to maintaining reliability, however, the generation option provides other attributes not provided under the transmission option.

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<sup>9</sup> NYISO Heat Wave presentation, p. 3.

<sup>10</sup> Attachment 2.

<sup>11</sup> The Term Sheet includes additional pricing terms that would result in credits to National Grid if Dunkirk's capacity revenues from the refueled plant significantly exceed expectations, if the facility does not meet certain forced outage performance thresholds, or if one or more of the Contract Units is out-of-service for an extended period. In addition, subject to certain conditions, National Grid also would reimburse Dunkirk for actual costs incurred to temporarily return the generation to service prior to completion of the refueling if necessary to maintain or retain Dunkirk's rights and ability to operate in New York, connect to the electric system, or to sell energy or capacity in the NYISO market. Such reimbursement would be capped at \$10 million.

As mentioned above, having generation at Dunkirk may help mitigate adverse reliability impacts of system changes such as the loss of other generation in the region and provides greater flexibility on the timing of transmission investments. These positive factors are not easily calculable, but nevertheless do provide value that is not available under the transmission-only solutions proposed by the Company. In addition to these beneficial reliability attributes, the refueling of Dunkirk Units 2, 3 & 4 has several non-reliability effects that would benefit electric customers and the southwest New York region and that are consistent with the State's public policy.

### C. Economic Benefits

Adding natural gas capability at Dunkirk brings several economic benefits. First, it creates construction jobs to install the new gas pipeline and to modify the facility to enable the generators to operate on natural gas. NRG estimated that construction spending during 2014 and 2015 to refuel Units 2, 3 & 4 would be approximately \$42 million. The Company's REMI model estimated that this level of construction spending would result in over 200 direct, indirect and induced jobs per year during construction.<sup>12</sup>

In addition, under the refueling option, NRG estimated there would be approximately 50 permanent employees at the plant and on-going annual O&M spending of \$25 million.<sup>13</sup> This level of direct employment and local spending could not be supported absent the refueling of the plant. Such employment levels and associated annual spending are expected to support over 300 jobs in the region once the plant is

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<sup>12</sup> May 17 Evaluation, p. 20 and Ex. 8. Note that the 132 jobs per year estimated for Option 2 in the May 17 Evaluation was based on the 4-year (2014-2017) construction period associated with NRG's Option 1. Using the 2-year period anticipated for construction under Option 2 results in average annual construction-related jobs impact of 264. *See also* Updated REMI model results included as Attachment 3.

<sup>13</sup> May 17 Evaluation, p. 19.

operating.<sup>14</sup> Although the \$20.41 million annual contract costs charged to National Grid customers is expected to negatively affect job creation, the net impact of construction spending, O&M spending and contract costs is expected to be positive, leading to creation of an average of 175 jobs per year, \$31 million in additional GDP, and nearly \$15 million in higher personal income over the 2015-2025 study period.<sup>15</sup>

Part of the economic benefit enabled by continued operation of the Dunkirk plant is the continued support of local communities in the form of tax revenues, estimated in the REMI model at \$8 million annually. These direct payments are critical to the ability of the local communities to continue providing essential services to their citizens; and, along with tax payments from residents who remain in the area due to the continued operation of Dunkirk, are very important to helping maintain quality of life in the area. Based on 2012 property tax levies, closure of the Dunkirk plant would impact the City of Dunkirk's local share budget by 41.83%, which is equivalent to the entire budget for the Dunkirk police and fire departments, impact the Dunkirk City School District's local share budget by 30%, equivalent to the salary of 58 teachers and school personnel, and require a property tax increase of about \$1,000 for the average Dunkirk homeowner to replace the lost revenue.<sup>16</sup> Thus, continued operation at Dunkirk helps "support local and state tax revenue stability, promote economic opportunity," and avoids creating "abandoned or underutilized land that would negatively affect surrounding communities and impede economic development," consistent with the State's declared public interest.

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<sup>14</sup>Attachment 3. The REMI estimates include direct, indirect and induced impacts.

<sup>15</sup>*Id.*

<sup>16</sup>Comments of Assemblyman Andrew Goodell (July 15, 2013), p. 5.

#### D. Electric Markets

The agreement is not a purchase power agreement and does not provide for acquisition by National Grid of energy, capacity, or any other NYISO market product. However, the agreement is expected to produce certain indirect electric market benefits that could affect National Grid customers.

PA Consulting projected that over a 2015-2025 study period, NRG's Option 2 (which consisted of the natural gas refueling of Units 2, 3 & 4) would result in approximately \$271 million lower ICAP payments for Niagara Mohawk customers and \$841 million less for the entire NYISO area on a 2013 NPV basis, with the vast majority of those benefits occurring in the early years of period.<sup>17</sup> Taking the first full year (2016) under Option 2, PA Consulting projected ICAP market savings of \$66 million for Niagara Mohawk customers and \$239 million across the state.<sup>18</sup> Therefore, although market response (not considered by PA Consulting) would likely affect the ability to realize such savings over the term of the agreement, the projected near-term benefits are substantial and it would be reasonable to consider some beneficial impact on the ICAP market in the near term when evaluating the agreement.

Information on congestion presented by the NYISO and NRG at the October 31, 2013 technical conference, and supplemented thereafter, also indicates substantial annual benefits. The NYISO estimates that annual LBMP payment savings in 2014 in the New York Control Area ("NYCA") from having three units on-line at Dunkirk would be \$8.8

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<sup>17</sup> May 17 Evaluation, p. 15 and Ex. 6, p. 18 of 39.

<sup>18</sup> May 17 Evaluation, Ex. 6, p. 18 of 39.

million, while NRG estimates 2014 savings of \$161.1 million.<sup>19</sup> National Grid's consultant estimated that LMP savings for National Grid customers from refueling Units 2, 3 & 4 would be approximately \$7 million per year.<sup>20</sup>

Although the estimated market effects anticipated from refueling the plant vary significantly, the forecasts suggest significant levels of annual savings that would benefit electric customers. Moreover, though the agreement to keep Dunkirk on-line is not for congestion management services, a collateral benefit of the agreement is to bring greater efficiency to the energy markets and reduce costs to customers. Therefore, although the estimated savings vary, they support a general finding that refueling Units 2, 3 & 4 could produce substantial benefits in the form of reduced ICAP and congestion costs.

#### E. Environmental

Refueling Dunkirk Units 2, 3 & 4 will reduce the local emission of CO<sub>2</sub>, SO<sub>x</sub> and NO<sub>x</sub> from the plant compared to burning coal. Although statewide emission of these pollutants is expected to remain relatively unchanged,<sup>21</sup> local emissions from the plant itself are expected to be significantly reduced.<sup>22</sup> Continued operation of Dunkirk also has another, indirect, environmental benefit not specifically considered in prior analyses. According to the NYISO, generation at Dunkirk relieves certain system constraints in western New York that otherwise limit the output of the NYPA Niagara Power Project ("NPP") hydroelectric plant. With some relaxation of the system constraints, a greater

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<sup>19</sup> NYISO Technical Conference presentation (Oct. 31, 2013, updated Nov. 19, 2013), p. 20; NRG Technical Conference presentation (Oct. 31, 2013, revised Nov. 6, 2013), p. 21.

<sup>20</sup> May 17 Evaluation, Ex. 6, p. 16 of 39.

<sup>21</sup> May 17 Evaluation, p. 22, Ex. 6, p. 18 of 39.

<sup>22</sup> NRG Repowering Options RFP response (March 26, 2013), p. 23.

proportion of the energy produced in NYISO Zone A is renewable, emissions-free hydropower than would be the case if Dunkirk were not operating.

F. Summary

In addition to the potential to defer a portion of reliability-related transmission investments (estimated from \$33.7 million to \$68.3 million), the agreement reflected in the Term Sheet provides additional reliability benefits relative to the Company's transmission-only solution. The availability of generation at Dunkirk in 2015 mitigates potential reliability exposure due to unanticipated system changes such as the loss of other generation in the region, and provides the NYISO operational flexibility to call on NPP and the IESO for economic or emergency energy during high load conditions.

In addition to the reliability benefits from the agreement, having generation at Dunkirk would produce economic benefits estimated to include \$31 million in additional GDP, nearly \$15 million in higher personal income, and 175 jobs per year over the 2015-2025 study period. Keeping Units 2, 3 & 4 on-line is also expected to produce lower statewide ICAP costs (as much as \$239 million in 2016), and lower annual congestion costs (\$8.8 - \$161.1 million in 2014). National Grid customers also are expected to see lower LMPs. The constraint relief produced by Dunkirk would also have a beneficial environmental effect through enabling increased production of emissions-free hydropower in western New York than would be the case under the transmission-only option proposed by the Company. Thus, considering the benefits that would be produced by refueling generating Units 2, 3 & 4 at Dunkirk, the overall value of the agreement reflected in the Term Sheet is greater than its costs. The agreement represents a

reasonable solution that is consistent with the State's declared policy and is in the public interest.

### **III. Cost Allocation and Recovery**

The Term Sheet and the agreement that will be based thereon between National Grid and Dunkirk are conditioned upon the Company receiving approval from the Commission to recover all its costs under the agreement. The Company proposes that the allocation and recovery of costs under the agreement be in a manner equivalent to the allocation and recovery provided under Rule 50 (Reliability Support Services (RSS) Surcharge) of the Company's retail tariff for reliability support services contracts. Under Rule 50, all customers other than Empire Zone and Excelsior Jobs Program qualifying loads are subject to the RSS surcharge, and costs are allocated to service classifications based on the Company's most recent transmission plant allocator. Based on the current methodology, costs are allocated on the respective contribution of each service class to the Company's coincident peak demand, as approved in the Company's most recent rate case, and are recovered from each class on a volumetric basis (kW for demand classes and kWh for non-demand classes).

Attachment 4 illustrates how the annual costs under the agreement would be allocated based on the currently effective methodology.<sup>23</sup> Because the anticipated monthly payments under the agreement in the Term Sheet (\$1.7 million per month) are less than the monthly costs expected to be recovered in connection with the current RSS

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<sup>23</sup> Attachment 4 reflects allocation of annual base costs under the agreement only. To the extent actual costs under the agreement differ from the annual base costs (e.g., due to forced outage performance, long-term outages, or capacity revenue credits, or due to additional charges from temporarily returning the units to service before refueling is complete), the actual costs will be recovered.

agreement (\$2.83 million per month),<sup>24</sup> the agreement in the Term Sheet that would refuel Dunkirk Units 2, 3 & 4 is expected to result in lower surcharges for customers compared to the proposed RSS surcharge filed recently.

#### **IV. Conclusion**

The Term Sheet in Attachment 1 reflects an agreement that will enable National Grid to continue to provide reliable electric service in western New York. Refueling Dunkirk Units 2, 3 & 4 also provides additional reliability benefits relative to the Company's transmission-only solution. Having Dunkirk on-line also increases the NYISO's operational flexibility to call on NYPA hydropower resources as well as imports from Ontario for economic or emergency energy under high load conditions.

In addition to direct reliability benefits, refueling Dunkirk Units 2, 3 & 4 would produce and retain significant local economic benefits consistent with State law, reduce statewide capacity costs and western New York transmission congestion, and have beneficial environmental effects. The benefits that result from refueling Dunkirk Units 2, 3 & 4 are projected to substantially outweigh the costs under the agreement.

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<sup>24</sup>As described in the National Grid's Statement of Reliability Support Services (RSS) Surcharge made February 6, 2014, the Company proposes RSS Surcharge recovery of approximately \$45.2 million over 16 months for the current RSS agreement, or approximately \$2.83 million/month.



Accordingly, for the reasons set forth above, National Grid respectfully requests that the Commission approve the Term Sheet dated February 13, 2014 without modification and authorize allocation and recovery of costs under the agreement to be implemented under the Term Sheet in a manner equivalent to the allocation and recovery provided under Rule 50 of the Company's retail tariff.

Respectfully submitted,

/s/ Carlos A. Gabilondo

Carlos A. Gabilondo

Senior Counsel II

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February 13, 2014

**ATTACHMENT 1**

**TERM SHEET**

## Terms for Dunkirk – National Grid Agreement (this “Agreement”) for Dunkirk Power Generating Units

**Date: February 13, 2014**

- Buyer:** Niagara Mohawk Power Corporation, d/b/a National Grid.
- Seller:** Dunkirk Power LLC (“Dunkirk”).
- Structure:** The Dunkirk-National Grid Agreement (the “DNG Agreement”) will support the natural gas addition at Dunkirk for the continued operation of the facility to address State and local interests and reliability considerations. The DNG Agreement will not replace or supersede the current Reliability Support Services (“RSS”) Agreement.
- Facility:** Dunkirk Units 2, 3 and 4 (the “Contract Units”) located at 106 Point Drive North, Dunkirk, NY 14048 with a nominal capacity of 435 MW.
- Term:** For a period of ten years from the start of hour ending 0100 Eastern Prevailing Time (“EPT”) on the In Service Date for the natural gas addition for the Contract Units (“Contract Term”).
- In-Service Date:** Targeted in-service date of September 1, 2015. The ten year term of the Agreement will begin upon the commercial operation date following completion of the fuel addition of the first of the three Contract Units that begins supplying electricity to the New York power grid. Payments will be pro rata in proportion to the nominal MW value of the respective units to the total nominal MW of the facility until all of the Contract Units begin supplying electricity to the New York power grid at which time payments will be made in full subject to performance adjustments.
- Termination:** No earlier than end of Contract Term, except pursuant to the provisions relating to Force Majeure Events and Necessary Approvals.
- Termination by Either Party:** Either Party may terminate the DNG Agreement if any of the following events or circumstances materially and adversely affect either Party with respect to the DNG Agreement during the term of the DNG Agreement because of:
- (1) a Change in Law;
  - (2) with respect to Dunkirk only, a final and nonappealable change to the NYISO Tariff;
  - (3) a final order of the New York Public Service Commission (NYPSC), provided that the party seeking to terminate the DNG Agreement has taken reasonable actions to oppose such final order and all applicable

appeals periods have run; or

- (4) a final order of any commission (other than the NYPSC) or a court of competent jurisdiction, provided that all applicable appeals periods have run.

For the purposes of this clause, “Change in Law” shall mean a change in federal or state environmental or other law, policy, regulation or rule, or a change in the interpretation of the same, that has a material effect on the operations of Dunkirk, as determined by Dunkirk in a commercially reasonable manner, or that shall require additional expenditures that are not reimbursable; or that has a material effect on Buyer’s recovery of payments under the Agreement, as determined by the NYPSC.

If the executed DNG Agreement is terminated by National Grid for any reason prior to September 1, 2017, Dunkirk will recover 100% of its reasonable, documented expenses with respect to the natural gas addition of the Dunkirk units and the construction of the natural gas pipeline, up to a maximum amount of the present value of the monthly payments remaining under the contract. If the DNG Agreement is so terminated after September 1, 2017, but before September 1, 2020, Dunkirk will recover such costs as follows:

<u>On or Before the Date*</u>	<u>%</u>
9/1/18	75%
9/1/19	50%
9/1/20	25%

\*Payment to Dunkirk for early termination by National Grid shall be the lesser of the present value of remaining monthly payments under the unexpired term of the DNG Agreement and Dunkirk’s reasonable, documented expenses with respect to the natural gas addition of the Dunkirk units and the construction of the natural gas pipeline times the applicable percentage from the foregoing table.

Termination of the DNG Agreement by National Grid due to a final order by the New York Public Service Commission (pursuant to Item 3 of the Termination Provisions above) will not be considered a termination by National Grid for purposes of this section.

**Planned Outages:**

Seller shall be permitted to take one or more Contract Units out of operation or reduce the capability of one or more of the Contract Units during planned outages as permitted by the NYISO Tariff.

**Forced Outages:**

If Dunkirk needs to take one or more of the Contract Units out of operation, Dunkirk shall notify National Grid, pursuant to established practice under the NYISO Outage Scheduling Manual, of the nature and expected duration of a Forced Outage as soon as practicable.

If the Average Unit Forced outage percentage is above the levels detailed below. Dunkirk will credit National Grid invoices, in an amount not to exceed \$3M per year in Year 1 or Year 2, and an amount not to exceed \$5M per year in Year 3 through Year 10, in accordance with the provision in (1) below. Any unit that is subject to the pro rata payment reductions included in the Other Pricing Terms section will not be included in the FO calculation.

Forced Outage performance shall exclude fuel interruptions and Outside Plant Management Control events as defined in Appendix K to the NERC Generating Availability Data System (GADS) Data Reporting Instructions.

Credits relating to Forced Outage performance related events shall be determined as follows:

Each contract year will have the following Average Units Forced Outage Percentage.

**Table 1**

<u>Year</u>	<u>Average Unit FO Percentage</u>
1	20%
2	15%
3-10	12.5%

If the Dunkirk Contract Units or their respective Automatic Voltage Regulators are on forced outage for more than a particular Average Unit FO Percentage during a particular contract year, Dunkirk will credit a calculated amount to National Grid on the invoices issued to National Grid following such contract year. If the Units or their respective Automatic Voltage Regulators are on a forced outage less than or equal to a particular Average Unit FO Percentage during a particular contract year, no credit payment will be due to National Grid.

- (1) The credit amount, if any, will be calculated by first determining at the end of the contract year each Unit’s unavailability due to forced outage hours for each contract year.

$$100 \times (\text{Annual Unit Forced Outage Hours (FOH)} / \text{Period Hours}) = \text{Unit FO Percentage.}$$

Period Hours for each annual period shall be the applicable contract year hours. Then a straight average will be taken for all three units. For example, if in Contract Year 3, Unit 2 has a 15% Unit FO Percentage, Unit 3 has a 17% Unit FO Percentage and Unit 4 has 19% Unit FO Percentage, the annual Average Unit FO Percentage would be 17%. This is 4.5% over the Average Unit FO Percentage values in Table 1. The calculation for credit would be:

$$4.5\% \times \$20.41\text{M (Annual Contract Cost)} = \$918,450 \text{ credit to Buyer}$$

Similarly, if in Contract Year 5, Unit 2 has a 29% Unit FO Percentage, Unit 3 has a 37% Unit FO Percentage and Unit 4 has 54% Unit FO Percentage, the annual Average Unit FO Percentage would be 40%. This is 27.5% over the Average Unit FO Percentage values in Table 1. The calculation for credit would be:

$$27.5\% \times \$20.41\text{M (Annual Contract Cost)} = \$5.613 \text{ million}$$

Annual performance credit to Buyer capped at \$5 million in Years 3 – 10.

- (2) Within 15 days after the end of the related contract year, Dunkirk will provide National Grid the availability data used to calculate the Average Unit FO Percentage which Dunkirk has reported through NERC GADS and provided to NYISO. NRG and National Grid will calculate whether any credit is due and will provide notice of the credit amount to National Grid. Any Year credit shall be applied against the amount of Monthly Fixed-Price Charge invoices issued in the following contract year until the credit is satisfied. To the extent any credit is due for Year 10, Dunkirk shall pay such credit to National Grid within 90 days of the expiration of the Contract Term.

**Scheduling and Bidding:**

Seller will interface and comply with NYISO scheduling deadlines and requirements for maintaining the unit as an eligible energy and capacity provider.

Energy, Capacity, and Ancillary Services – Units bid in compliance with existing NYISO market rules and Seller retains all revenues.

Dunkirk Power shall offer the Contract Units into the NYISO-administered Day-Ahead Energy market, irrespective of whether Dunkirk Power's capacity bid has been accepted for such period, whenever those units are not out of service. Dunkirk Power shall comply with any dispatch instruction issued by NYISO under established NYISO protocols, consistent with the operating parameters of the Contract Units and in accordance with the NYISO Tariff.

National Grid shall not be responsible for any penalties or fines that relate to the bidding, scheduling, and operation of the Contract Units during the term of this Agreement.

**Pricing:** Annual payment - \$20,410,000 or \$1,700,833.33 per month.

**Other Pricing Terms:** Seller will be responsible for the full payment of property taxes in accordance with the PILOT agreement or any corresponding amendment of such agreement through the Contract Term.

Dunkirk shall pay National Grid a capacity credit (the "Sharing Amount") provided average capacity prices exceed a threshold price during the applicable sharing period. The Sharing Amount will be calculated for two cumulative five-year periods based on the applicable ICAP pricing zone in which Dunkirk is located (currently established as the NYCA by the NYISO). For each of the two periods, the ratio of the average of the NYISO Spot Market Auction clearing price (the "Historic Capacity Price") to the average of the NYISO Spot Market Demand Curve Monthly Reference price (the "Threshold Capacity Price") beginning with the 2015/2016 Demand Curves as set by the NYISO's Demand Curves will be calculated to determine the applicable Sharing Factor and Reference Factor for the Sharing Amount calculation below:

Historic Capacity Price = 5-year average of NYISO Spot Market Auction clearing prices (\$/kW-mo)

Threshold Capacity Price = 5-year average of the NYISO Spot Market Demand Curve Monthly Reference prices (\$/kW-mo)

If Historic Capacity Price is > 60% and < or = 70% of the Threshold Capacity Price then Sharing Factor = 0.30 and Reference Factor = .50 where the Sharing Amount will not be less than zero and not exceed 8% cap of the Historic Capacity Price multiplied by Dunkirk average UCAP multiplied by the applicable 60 month term.

If Historic Capacity Price is > 70% and < or =80% of the Threshold Capacity Price then Sharing Factor =0.40 and Reference Factor = .60 where the Sharing Amount will not be less than zero and not exceed 9% cap of the Historic Capacity Price multiplied by Dunkirk average UCAP multiplied by the applicable 60 month term.

If Historic Capacity Price is > 80% of the Threshold Capacity Price then Sharing Factor =0.50 and Reference Factor = .70 where the Sharing Amount will not be less than zero and not exceed 10% cap of the Historic Capacity Price multiplied by Dunkirk average UCAP multiplied by the applicable 60 month term.

The Sharing Amount shall be calculated as follows:

Sharing Amount = 60 months \* Sharing Factor \* ((average UCAP of Dunkirk 2, 3, and 4 \* 1000) \* (Historic Capacity Price – (Threshold Capacity Price \* Reference Factor))), provided, however that Dunkirk will retain the first \$2.5MM of the Sharing Amount for each five-year period and the Sharing Amount shall not be less than zero and no higher than the applicable percentage cap. Note that if one or more of the Contract Units has been taken out of service and National Grid has reduced its payments to Dunkirk in accordance with the paragraph below, such Contract Unit will not be included in the calculation of the Sharing Amount for any period such Contract Unit has been so taken out of service.

For illustrative purposes, assume the following:

The Historic Capacity Price for the first 60 month period =  
\$7.50/kW-month

The Threshold Capacity Price for the first 60 month period = \$9.00

The Dunkirk average UCAP for the first 60 months = 410 MW

The Historic Capacity Price/The Threshold Capacity Price =  
\$7.50/\$9.00 = 83.33%

Thus,

The Sharing factor = 0.50, and the Reference Factor = 0.7

Sharing Amount = (60 months x 0.50 x 410 x 1,000) x (\$7.50 –  
(\$9.00 x 0.70)) – \$2,500,000 = \$12,260,000

Where the Sharing Amount in this example is capped at 10% of Dunkirk Estimated ICAP market revenue as determined by; .10 \* (60 month x 1000 x 410 x \$7.50) = \$18,450,000

If the Sharing Amount is greater than zero for the first sharing period, National Grid shall deduct such amount from the next invoice payable to Dunkirk. If the Sharing Amount is greater than zero for the second sharing period, Dunkirk shall pay such amount to National Grid within 90 days of the expiration of the Contract Term.

If one or more of the Contract Units is retired, mothballed, or otherwise unable to operate for a period exceeding six consecutive months during the Contract Term (except if the cause of such Contract Unit's inability to operate is attributable to an "Outside Management Control" event as defined in GADS Appendix K, in which case this provision shall not apply), a portion of the



monthly payments (as detailed below) shall be reduced in proportion to the nominal MW value of the affected unit to the total nominal MW of the Contract Units.

Consecutive Months Out	Portion of Monthly Payments to Pro Rate
6 or less	0%
Greater than 6, up to 24	75%
Greater than 24, up to 36	85%
Greater than 36	100%

As an example, if Unit 3 (which, for purposes of this calculation, is assumed to be a 180 MW Unit) is out for more than 6 months, and up to 24 months, the monthly reduction shall be calculated as follows:

$$\text{Unit 3 Prorated Portion of Monthly Contract Price} = (0.75) \times (180/435) \times (20,410,000/12) = \$527,844.83$$

$$\text{Reduction in Monthly Payment from National Grid} = \$527,844.83/\text{month}$$

\*Note that the total 435 MW number, as well as the total MW per unit, will be adjusted after demonstrated maximum net capability testing at final commissioning

Monthly payments reduced pursuant to this provision shall be resumed commencing on the first day of the calendar month following the return to service of the affected unit with a true-up in payments for the days in service from the previous month. For months in which a pro rata payment reduction is in effect, affected unit performance will not be counted for purposes of calculating the forced outage credit. Any Contract Unit that is the subject of such monthly payment reduction will not be included in the Forced Outage calculation.

**Operations and Maintenance**

Seller will operate and maintain the Facility within standards of accepted electric industry practice.

**Force Majeure**

“Force Majeure Event” means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, any order, regulation or restriction imposed by a Governmental Authority, breakage or accident of machinery or equipment not directly caused by a lack of proper care

or maintenance, or any other cause beyond a Party's control.

If the availability of any of the Contract Units is reduced by reason of a Force Majeure Event, such Force Majeure Event shall be deemed to create a Forced Outage, and shall be resolved pursuant to the provisions herein relating to Forced Outages.

The Party unable to perform by reason of a Force Majeure Event shall use reasonable efforts to remedy its inability to perform and to mitigate the consequences of the Force Majeure Event as soon as reasonably practicable; provided that (i) no Party shall be required to settle any strike, walkout, lockout, or other labor dispute on terms which, in the Party's sole discretion, are contrary to its interests and (ii) the Party unable to perform shall, as soon as practicable, advise the other Party of the reason for its inability to perform, the nature of any corrective action needed to resolve performance, and its efforts to remedy its inability to perform and to mitigate the consequences of its inability to perform and shall advise the other Party of when it estimates it will be able to resume performance of its obligations under this Agreement.

**Limitations of  
Liability:**

Buyer, its affiliates, successors and assigns shall not be liable to Seller, its affiliates, successors and assigns, for actions or omissions by Buyer or Buyer's affiliates, officers, employees or agents in performing its obligations under this Agreement, provided that Buyer has not willfully breached this Agreement or engaged in willful misconduct. To the extent Seller has claims against Buyer, Seller may only look to the assets of Buyer for the enforcement of such claims and may not seek to enforce any claims against the directors, members, officers, employees or agents of Buyer who, Seller acknowledges and agrees, have no personal liability for obligations of Buyer by reason of their status as directors, members, officers, employees or agents of Buyer.

Seller, its affiliates, successor and assigns, shall not be liable to Buyer, its affiliates, successors and assigns, for actions or omissions by Seller, or Seller's affiliates, officers, employees or agents in performing its obligations under this Agreement, provided that Seller has not willfully breached this Agreement or engaged in willful misconduct. To the extent Buyer has claims against Seller, Buyer may only look to the assets of Seller for the enforcement of such claims and may not seek to enforce any claims against the directors, members, officers, employees or agents of Seller who, Buyer acknowledges and agrees, have no personal liability for obligations of Seller by reason of their status as directors, members, officers, employees or agents of Seller.

In no event shall Seller be liable to Buyer or Buyer be liable to Seller for any incidental, consequential, multiple or punitive damages, loss of revenues or profits, attorneys' fees or costs arising out of, or connected in any way with the performance or nonperformance of this Agreement.

**Procedural Issues:** The Parties agree to not file any rehearing request of any New York Public Service Commission (NYPSC) decision approving this agreement without material modification, nor recommend to the NYPSC that any rehearing be granted.

The Parties agree not to file any judicial appeal and further agree not to support any request for judicial review filed by another party of any NYPSC or other decision approving this agreement without material modification.

National Grid will not take a position at the NYPSC, FERC or other administrative or judicial forum opposing this Agreement or the DNG Agreement.

The Parties agree that this Term Sheet Agreement shall be submitted by National Grid to NYPSC for consideration and approval no later than February 13, 2014. The Parties agree that any NYPSC order approving the Agreement may direct the Parties to submit a final contract to demonstrate compliance with the NYPSC's December 23, 2013 Notice of Filing Deadline. Any disapproval of, or a material change directed, by the NYPSC, to the Final Contract, shall allow either party to avail itself of the rights afforded it under this section as if the NYPSC disapproved, or directed a material change, to the Agreement.

**Confidentiality:** Buyer and the New York Public Service Commission will be permitted to release the price per month to be paid under the Agreement, as well as the identified elements that comprise the pricing. Amounts attributable to each pricing element, unless they are included in this Agreement or the final contract based on this Agreement, will not be released by the Buyer absent a ruling or order from a commission or court of competent jurisdiction directing such release. Buyer is not required to substantively defend claims that information provided by Dunkirk satisfies legal or regulatory exemptions from disclosure.

**Binding Nature:** It is the Parties' expectation that this Agreement will be filed on February 13, 2014 and will be approved in a subsequent meeting by the NYPSC.

**Necessary Approvals:** Parties will engage in good faith negotiations aimed at completing a final contract based on this Agreement as soon as possible.

If the NYPSC rejects this term sheet Agreement in an order or if, prior to the execution of the DNG Agreement, the NYSPC affirmatively does not permit Buyer to recover all of the costs of the DNG Agreement in a manner reasonably acceptable to Buyer such that it would have a material adverse impact on the Buyer, Buyer shall have no obligation to enter into the DNG Agreement after all applicable appeals periods have lapsed provided that Buyer has taken reasonable actions to oppose the related NYPSC order, including judicial appeal of such

order.

**Miscellaneous:**

The EBITDA return provisions from the first RSS Agreement will not apply while the DNG Agreement is in effect

Total capacity amount of 435 MW, as well as the per unit MW amount, will be confirmed and adjusted after demonstrated maximum net capability testing at final commissioning. National Grid will timely negotiate in good faith with respect to the any easements or other property interests sought for the pipeline right of way.

National Grid shall compensate Dunkirk for actual incremental costs incurred to return the Dunkirk units to service, in advance of the term of the Agreement, for one month, if such return to service is necessary pursuant to the reasons described below, at up to a total cost cap of \$10M, if Dunkirk has not scheduled at least one pre-filing meeting with the New York Department of Public Service by May 31, 2014, a complete Article VII filing has been received by the NYPSC by August 1, 2014 and the NYPSC does not grant an Article VII certificate by March 1, 2015 due to regulatory delay within the state's reasonable control. Any costs above the \$10M will be borne by Dunkirk. National Grid shall pay such costs only if it is necessary to return the Dunkirk units to service to maintain or retain Dunkirk's rights and ability to operate in the state of New York, to connect to the New York Grid or to sell energy and capacity in the New York ISO market, and the Seller has taken commercially reasonable action in pursuing less-costly options (e.g., seeking a waiver to the current rules) but less-costly options are not reasonably available, and National Grid is authorized to recover such costs in rates. Actual costs of temporary start-up will include costs associated with staffing increases, maintaining interconnection rights, maintaining the air permit, maintaining the NPDES permit and other regulatory requirements. Dunkirk shall provide National Grid documentation of all actual incremental costs incurred to temporarily return the Dunkirk units to service and shall briefly indicate what other options, if any, were considered to maintain or retain Dunkirk's rights and why they were not commercially reasonable.

The \$10M cost cap to return the Dunkirk units to service for one month described above would be shared equally by Dunkirk and National Grid if a complete Article VII filing were received by the NYPSC by August 1, 2014 and the Article VII certificate is not granted by the PSC by March 1, 2015 due to unforeseen events beyond the control of the state.

NRG will notify National Grid, NYISO and the NYPSC of a planned temporary operation and its expected duration prior to the actual In-Service Date. Such temporary operation shall not constitute an action requiring a renewed notice under the NYPSC's retirement notice provisions.

Dunkirk's obligations to execute the DNG Agreement are contingent upon confirmation of the details regarding the NPV \$15 million assistance from the appropriate agency in form and substance acceptable to Dunkirk.

Final contract to include standard contractual terms such as amendment, severability, multiple execution copies, notice, and dispute resolution

**ATTACHMENT 2**  
**UPDATED TRANSMISSION COSTS**

## Niagara Mohawk Power Corporation - Electric

Annual Carrying Charge  
For use by Electric T&D Operations  
As an Indicative Revenue Requirement  
For Dunkirk Capital Project (mid-range)  
(000)

Estimated Capital Investment of Dunkirk Project:	
Reconductoring of 1 mile of the Niagara-Gardenville #180 line	\$4,000
Reconductoring of 2.3 miles of the Packard-Gardenville #182 line	\$7,800
Two 33.3 MVA cap banks at Dunkirk (115 kV)	\$2,500
One 75 MVA cap bank at Huntley (115kV)	\$1,400
Reconductor two 115 kV lines (5-Mile Rd to Homer Hill)	\$18,000
Total Capital Investment	<u>\$33,700</u>
First Year Average Rate Base	\$33,355
Total Carrying Charge Applied to Average Rate Base - Return on Ratebase*	9.44%
Total Carrying Charge Applied to Initial Capital Investment - Deprec, RE Tax and O&M	7.32%
Estimated First Year Revenue Requirement	<u>\$5,616</u>

\* Carrying Charges per NMPC Case 12-E-0201

Per Electric & Gas 2012 Case for FY2014 - JP Appendix 1, Sch 1, Pg 5 for COC & Final Revenue Req't for Depreciation, Property Taxes and O&M Expense

Capital Costs:	Amount	Ratio	Rate	Weighted Rate	Pretax Cost of Money	
Long Term Debt	\$2,582,209	49.71%	4.04%	2.01%	2.01%	This section checks
Notes Payable	\$52,399	1.01%	0.46%	0.00%	0.00%	
Customer Deposits	\$37,559	0.72%	1.65%	0.01%	0.01%	
Preferred Stock (COP)	\$28,985	0.56%	3.66%	0.02%	0.03%	calculations. The sum of the After tax cost of money plus the Federal and State tax add-ons should = the pre-tax cost of money as calculated here.
Common Equity (COC)	\$2,493,371	48.00%	9.30%	4.46%	7.39%	
Total	<u>\$5,194,523</u>	<u>100.00%</u>		6.50%	9.44%	
<u>Income Taxes:</u>		<u>Rate</u>	<u>Formula</u>		<u>0.00%</u>	
Federal (FIT)		35%	(COP + COC + SIT)*(1/(1-35%)-.35) = FIT	2.60%		
State (SIT)		7.1%	(COP + COC)*(1/(1-7.1%)-1) = SIT	0.34%		Check:
Transmission Depreciation Expense				2.05%		7.42% pretax COP + COC
						0.53% SIT on pretax COP+COE
						6.89% less SIT
						2.41% FIT
						4.48% weighted COP + COC
Property Taxes (000)	\$167,115.000		Average Depreciable Expense / Total Elec Plant in Svc.	2.11%		
Trans. O & M Expense (000)	\$71,292.715		Average Depreciable Expense / Trans. Plant in Svc.	3.16%		
Total Carrying Charge				<u>16.76%</u>		

Note: Deferred tax impact is not included in this analysis.

O&M Expense relates to on-going O&M required, not including the initial O&M associated with constructing this facility





Niagara Mohawk Power Corporation - Electric

Annual Carrying Charge  
For use by Electric T&D Operations  
As an Indicative Revenue Requirement  
For Dunkirk Capital Project  
(000)

Estimated Capital Investment of Dunkirk Project:	
Reconductoring of 1 mile of the Niagara-Gardenville #180 line (+200%)	\$12,000
Reconductoring of 2.3 miles of the Packard-Gardenville #182 line (+200%)	\$23,400
Two 33.3 MVAR cap banks at Dunkirk (115 kV) (+50%)	\$3,800
One 75 MVAR cap bank at Huntley (115kV) (+50%)	\$2,100
Reconductor two 115 kV lines (5-Mile Rd to Homer Hill) (+50%)	\$27,000
Total Capital Investment	<u>\$68,300</u>
First Year Average Rate Base	\$67,600
Total Carrying Charge Applied to Average Rate Base - Return on Ratebase*	9.44%
Total Carrying Charge Applied to Initial Capital Investment - Deprec, RE Tax and O&M	7.32%
Estimated First Year Revenue Requirement	<u>\$11,381</u>

\* Carrying Charges per NMPC Case 12-E-0201

Per Electric & Gas 2012 Case for FY2014 - JP Appendix1, Sch 1, Pg 5 for COC & Final Revenue Req't for Depreciation, Property Taxes and O&M Expens

Capital Costs:	Amount	Ratio	Rate	Weighted Rate	Pretax Cost of Money	
Long Term Debt	\$2,582,209	49.71%	4.04%	2.01%	2.01%	This section checks calculations. The sum of the After tax cost of money plus the Federal and State tax add-ons should = the pre-tax cost of money as calculated here.
Notes Payable	\$52,399	1.01%	0.46%	0.00%	0.00%	
Customer Deposits	\$37,559	0.72%	1.65%	0.01%	0.01%	
Preferred Stock (COP)	\$28,985	0.56%	3.66%	0.02%	0.03%	
Common Equity (COC)	\$2,493,371	<u>48.00%</u>	9.30%	4.46%	<u>7.39%</u>	
Total	<u>\$5,194,523</u>	<u>100.00%</u>		6.50%	9.44%	
<b>Income Taxes:</b>						
	<u>Rate</u>	<u>Formula</u>			<u>0.00%</u>	
Federal (FIT)	35%	(COP + COC + SIT)*(1/(1-35%)-.35) = FIT		2.60%		
State (SIT)	7.1%	(COP + COC)*(1/(1-7.1%)-1) = SIT		0.34%		Check:
Transmission Depreciation Expense				2.05%		7.42% pretax COP + COC
		Average Depreciable				0.53% SIT on pretax COP+CO
Property Taxes (000)	<u>Expense</u>	<u>Elec Plant in Svc.</u>		2.11%		6.89% less SIT
	\$167,115.000	#####				2.41% FIT
		Average Depreciable				4.48% weighted COP + COC
Trans. O & M Expense (000)	<u>Expense</u>	<u>ns. Plant in Svc.</u>		3.16%		
	\$71,292.715	#####				
Total Carrying Charge				<u>16.76%</u>		

Note: Deferred tax impact is not included in this analysis.

O&M Expense relates to on-going O&M required, not including the initial O&M associated with constructing this facility



**ATTACHMENT 3**  
**UPDATED REMI RESULTS**



**ATTACHMENT 4**  
**ALLOCATION OF ESTIMATED COSTS**  
**OF REFUELING AGREEMENT**

**NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL GRID  
ALLOCATION OF ESTIMATED REFUELING AGREEMENT COSTS**

Design Service Class	12-months ended 3-31-2016 kW Billed (A)	12-months ended 3-31-2016 kWh Sales (B)	Transmission Plant Allocator (C)	Allocation of Estimated RSS Costs (D)	12-months ended 8-29-2016 Rate (E)
1. SC1	-	11,148,494,696	42.67%	\$8,704,680	\$ 0.00078
2. SC1C	-	357,847,234	1.00%	\$204,000	\$ 0.00057
3. SC2ND	-	653,354,732	2.68%	\$546,720	\$ 0.00084
4. SC2D	15,110,754		14.55%	\$2,968,200	\$ 0.20
SC3					
5. Secondary	10,832,314		13.04%	\$2,660,160	\$ 0.25
6. Primary	4,487,194		5.10%	\$1,040,400	\$ 0.23
7. Transmission	1,555,433		1.30%	\$265,200	\$ 0.17
8. Total	<u>16,874,941</u>	-	<u>19.44%</u>	<u>\$3,965,760</u>	
SC3A					
9. Secondary					
10. Primary	2,684,371		3.19%	\$650,760	\$ 0.24
11. Subtransmission	3,704,085		4.06%	\$828,240	\$ 0.22
12. Transmission	12,715,606		12.39%	\$2,527,560	\$ 0.20
13. Total	<u>19,104,062</u>	-	<u>19.64%</u>	<u>\$4,006,560</u>	
14. Total PSC 220				\$20,395,920	
Street and Highway Lighting					
15. SC1	-	23,665,889		\$475	\$ 0.00002
16. SC2/5	-	159,398,607		\$3,201	\$ 0.00002
17. SC3/6	-	9,219,028		\$185	\$ 0.00002
18. SC4	-	10,911,329		\$219	\$ 0.00002
19. Total PSC 214	-	203,194,853	0.02%	\$4,080	
20. Total PSC 220/214			100.00%	\$20,400,000	

- A Joint Proposal, Appendix 2, Schedule 6, Column A less EZR and Excelsior  
B Joint Proposal, Appendix 2, Schedule 6, Column A less EZR and Excelsior  
C Exhibit \_\_\_\_ (E-RDP-3), Schedule 3, Page 1 of 8, Line 17  
D RSS costs allocated by Column C.  
E Column (D) / Column (A) or Column (B)