REDACTED

NATIONAL GRID REQUEST FOR PROPOSAL

DUNKIRK REPOWERING OPTIONS

CONFIDENTIAL

Dunkirk Power LLC and NRG Energy, Inc. consider the contents of this document to be Confidential Information, and that therefore, with respect to this document and its contents, National Grid is subject to the confidentiality obligations of the Confidentiality Agreement between NRG Energy, Inc. and National Grid, dated as of November 10, 2011, as amended.

March 26, 2013

TABLE OF CONTENTS

OVERVIEW

NRG Energy, Inc. ("NRG") is pleased to respond to the February 19, 2013 Dunkirk Repowering Request for Proposal ("RFP"), issued by National Grid pursuant to the New York Public Service Commission's ("NYPSC") January 18, 2013 *Order Instituting Proceeding and Requiring Evaluation of Generation Repowering*. NRG proposes three repowering options for the Dunkirk Generating Station ("Dunkirk") located at 106 Point Drive North in Dunkirk, New York, that provide a range of reliability solutions and services at various price points, while maximizing benefits to New York ratepayers.

1. **1x1 Combined cycle gas turbine ("CCGT") and refuel Dunkirk Unit 2 on natural gas** – A new 422 MW CCGT, located on the 230kV network, coupled with a natural gas refueling of the Dunkirk Unit 2 (75 MW) provides high-efficiency generation and reliability services on both the 115kV and 230kV networks while delivering up to $300 million annually in ratepayer savings. The gas-refueled Unit 2 can be in service by [redacted] and the CCGT can be in service by [redacted] assuming a contract for both are awarded by [redacted].

2. **Refuel Dunkirk Units 2, 3 and 4 using natural gas** – A low-cost option to supply 455 MW of generation in Western New York while meeting the reliability needs of the region. In this option, NRG will add natural gas-firing capability to units 2, 3 and 4. Proposed in-service date: [redacted], assuming a contract award by [redacted].

3. **Peaking units –**285 MW of new gas-fired peaking units, capable of full-load operations in 10 minutes that can help meet shifting demand in the Western New York ("WNY") market. Proposed in-service date: [redacted], assuming a contract award by [redacted].

All the above options will provide substantial and long-lived benefits to ratepayers across New York State and will generate substantial economic activity in the WNY region. A more complete benefits discussion follows. The highlights of NRG's proposal include:

- Substantial Ratepayer Savings – A recent independent third-party ratepayer study, which analyzed the effects of the CCGT repowering, identified state-wide ratepayer benefits averaging **$300 million** per year in capacity and energy market savings. Local ratepayer benefits will average nearly **$90 million** per year over the 10 year study period.

- Maximum generating efficiency – The proposed CCGT will be the most efficient gas-fired generating unit in New York, with heat rates of approximately [redacted].

- Improved Emissions Profile – Compared to the existing four-unit Dunkirk facility, all three options provide annual emissions reductions up to 99%, and aggregate emissions reductions up to 6% among all generators across New York State.

- Reliable and Economic Fuel Supply – All three options will access a reliable, low-cost interstate gas pipeline supply. Dunkirk is ideally located near a relatively unconstrained regional natural gas system that has significant redundancy because of the interconnection of several gas pipelines in that region.

- Price Certainty – Engineering and capital cost estimates for all three options are provided on a [redacted], offering significant benefits when evaluating ratepayer risk, project execution risk, and price evaluation. Upon completion of final negotiations with the winning option, NRG will commit to a binding, final price.

- Fast Start Technology – The CCGT and peaker proposals utilize a fast-start design that enhances load-following capabilities that support and complement growing renewable generation resources.

- Adds WNY Jobs – Building the CCGT unit will provide up to 500 jobs during the 36-month construction period and will provide other long-term jobs at the Dunkirk plant.

- Growth Engine for WNY Economy – Ratepayer benefits, a long-term tax base, and long-term jobs identified in a study of the Dunkirk CCGT repowering option will add approximately **$136 million** annually to the WNY economy, and nearly **$350 million** annually across the state.

- Re-Use Existing Infrastructure – Each option will reuse existing land and electrical interconnections and transmission system infrastructure, and each offers the flexibility to configure the interconnections to maintain local reliability while managing for future growth.

- Public Support – Repowering Dunkirk enjoys significant public support from local stakeholders. The PowerUpWNY coalition petitioned Governor Cuomo and the New York Energy Highway Task Force with more than 4,000 signatures supporting a new CCGT project at Dunkirk.

[redacted] The projects proposed here provide a suite of options that improve long-term reliability, provide stability, and offer significant economic development in the region while maximizing ratepayer benefits throughout New York State.

PRICING

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]

[redacted]

FINANCING

NRG understands the magnitude of the investment required for any of the options listed above and has the financial resources available to implement all options, on budget and on schedule. Since January 1, 2011, NRG has successfully financed 3,600 MW of development projects on a non-recourse basis, through $6.8 billion of project debt financing, including letter of credit facilities, with competitive terms.

A traditional project financing structure will be used to finance the CCGT or the peaking units (Figure 1). This structure will incent lenders, EPC contractors, and other project stakeholders by providing flexibility with a structure that allows for a proper allocation of commercial risk mitigation.

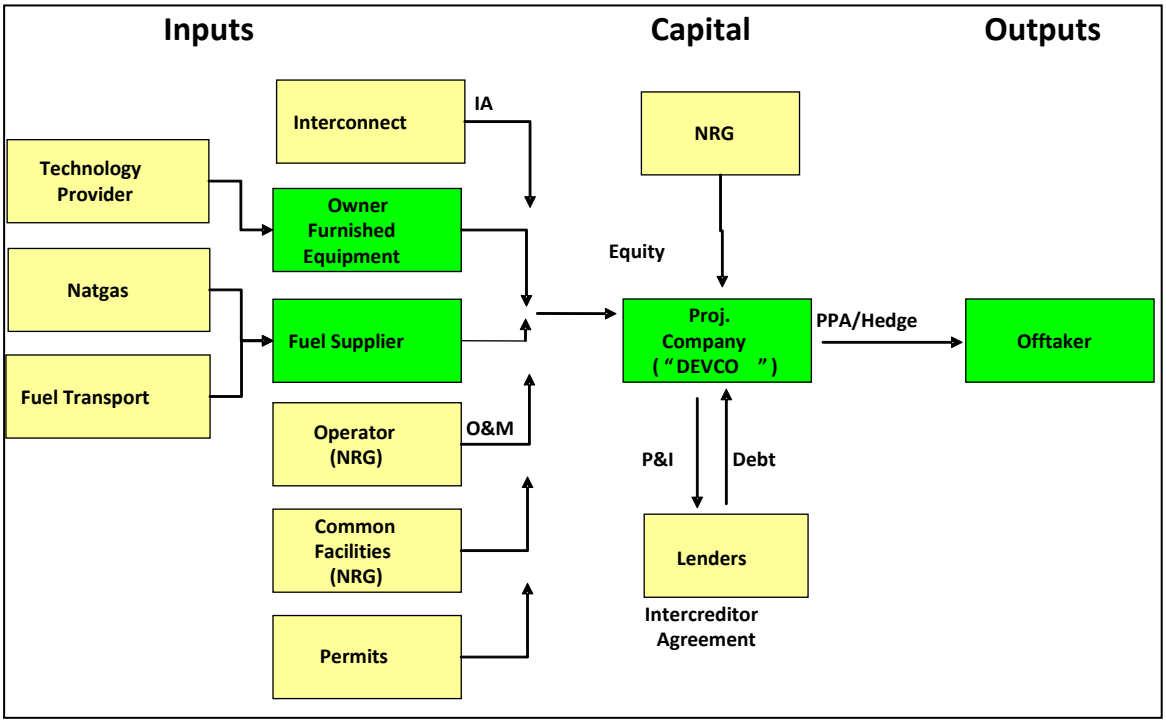


Figure 1. CCGT or Peaking Units Project Structure

[redacted]

Figure 1 indicates the project components that must be executed or be in an advanced stage prior to successfully raising third-party financing. These components include an executed power purchase agreement or hedge with a creditworthy off-taker, as well as interconnection arrangements. To date, initial development and engineering activities have been directly funded by NRG and no project debt has been used or assumed.

Debt financing may include several tranches of debt with various terms and maturities syndicated among a broad range of domestic and international banks and financial institutions. NRG routinely canvasses the lending markets to determine which institutions are receptive to participating in such loan facilities. Several institutions have demonstrated their capability and willingness to serve in a lead role in a project finance syndication. [redacted]

[redacted]

PROPOSED OPTIONS

Based on the needs identified in the February 19, 2013 RFP, NRG has developed three options for repowering the Dunkirk site. They are:

Dunkirk Repowering Options

	MW Rating	Technology	[redacted]
1	422	New 1x1 Combined Cycle Generating Turbine	[redacted]
	75	Unit 2 Natural Gas Refueling	[redacted]
2	455	Units 2, 3 and 4 Refueling	[redacted]
3	285	Six Peaking Units	[redacted]

Table 1. Repowering Options

Each option provides reliability support on both the 115kV and 230kV systems and mitigates load shed risk for the system by maintaining two independent generating sources that will be dispatched separately. The following sections describe each option in detail and include proposed technologies, construction plans, permitting timelines, and interconnections.

OPTION 1 – 1X1 CCGT AND UNIT 2 RETROFITTED FOR GAS FIRING

The first option for repowering the Dunkirk coal facility is to build a new CCGT unit with a generating capacity up to 422 MW. The Dunkirk CCGT will be a state-of-the-art, one-on-one combined cycle unit with duct-firing capabilities. In addition to the Dunkirk CCGT, NRG will retrofit Unit 2 (75 MW) so that that unit can fire on natural gas.

The Project will utilize NRG's existing on-site electrical interconnections for Unit 2 on the 115 kV and the CCGT on the 230 kV. Several natural gas pipelines are located within a ten-mile radius of the Dunkirk site and will provide sufficient year-round gas supply.

NRG can retrofit Unit 2 [redacted] and achieve full operations of the CCGT in time for the [redacted] season. Air permitting for the CCGT under the new Article 10 process is expected to take [redacted]. After the full air permit is awarded, the construction phase of the project will take approximately [redacted]. Adding natural gas-firing capability to Unit 2 will require NRG to amend the existing air permit to include natural gas as an allowable fuel source. Modifications to the unit can take place over a [redacted] period; [redacted].

CCGT + Unit 2 Technical Description

The proposed CCGT project uses state-of-the-art generation technology. The CCGT uses a high-efficiency combustion turbine coupled with a dual re-heat heat recovery steam generator and a triple-pressure steam turbine. Closed-cycle wet cooling is included in the reference design. NRG plans to build the CCGT unit on the acreage in front of the existing Dunkirk station.

Advances in CCGT technology enable generation owners to optimize plant characteristics around the needs of the local transmission grid. These needs include maximizing efficiency, delivering fast-start capability, providing sufficient capacity, integrating "peaking" capability through the use of duct burners, and offering ancillary services including automatic generation control and fast ramp rate.

The proposed CCGT project is capable of achieving efficiencies greater than any other facility currently operating in New York State. The proposed CCGT configuration offers a heat rate of approximately [redacted].

The CCGT is also designed to accommodate the various needs of New York's transmission system including the use of fast-start capabilities for wind firming operations, maximizing total on-site capacity. Whatever National Grid's final requirements, NRG will work with multiple technology providers to design the units to deliver the required performance characteristics for the best overall value.

The expected lifespan of a CCGT is generally considered to be 30 years. NRG will operate the CCGT to maximize its lifespan through industry best practices and best-in-class preventative maintenance.

National Grid will be able to direct the supply and draw of reactive power of this unit. Following is a table of expected leading and lagging reactive power that the proposed system could produce:

[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

Table 2. CCGT Reactive Power

NRG also proposes adding natural gas-firing capability to the existing Unit 2 to mitigate the load shed risks and satisfy other 115kV system needs identified by National Grid. The conversion process will require adding gas nozzles to the existing boiler, and making some additional, minor boiler modifications. [redacted].

Electrical Interconnections

NRG has an existing interconnection agreement for the current Dunkirk 1, 2, 3, and 4 generators. All the units are interconnected to the directly adjacent National Grid 115/230 kV substation, with the two smaller units on the 115 kV voltage level and the two larger units at the 230 kV level.

Because the Dunkirk CCGT will use the existing Dunkirk interconnections, this repowering option will also use the existing electric system infrastructure, minimizing costs and construction time. Additionally, NRG holds a total of 593.9 MW of grandfathered capacity deliverability rights at this location which will be transferred to the repowered units. This transfer ensures that the repowering will be eligible to participate in the New York Independent System Operator ("NYISO") capacity market and will not incur costly deliverability upgrades. This further helps reduce costs and increase benefits to consumers.

The CCGT will be subject to the NYISO interconnection study process and will likely interconnect to the 230 kV system while Unit 2 will continue to interconnect to the 115 kV system. NRG believes that the interconnection study process can be expedited because the repowering would replace some of NRG's existing units at the site, and the point-of-interconnection already exists. Accordingly, the interconnection process is expected to proceed normally, and NRG will file an interconnection request with the NYISO sufficiently in advance to meet the proposed 2017 commercial operation date for the CCGT.

Construction Plan

[redacted]

Permitting

[redacted]

[redacted]

[redacted]

SCHEDULE

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 3. Unit 2 Refueling Schedule

OPTION 2 – NATURAL GAS ADDITIONS TO UNITS 2, 3 AND 4

[redacted]

Natural Gas Addition to Units 2, 3 and 4 Technical Description

NRG currently uses Powder River Basin coal to fuel the existing boilers at Dunkirk. Units 2, 3 and 4 are corner-fired boilers and will be modified to incorporate gas burners in the present location of oil/aux air buckets. The conversion of Dunkirk Units 2, 3 and 4 will add gas-firing capability to the existing station and will retain the flexibility to fire on coal in the future. Net output of the converted Units 2, 3 and 4 on natural gas would remain at 455 MW.

Dunkirk Generation			
	Technology	**COD Year**	**Capacity**
Unit 2	CE Boiler/GE Turbine	1950	75 MW
Unit 3	CE Boiler/GE Turbine	1959	190 MW
Unit 4	CE Boiler/GE Turbine	1959	190 MW
Total			455 MW

Table 3. Existing Dunkirk Units

Interconnection

Units 2, 3 and 4 will maintain their existing interconnection positions on the National Grid 115kV (Unit 2) and 230 kV (Units 3, 4) systems. No additional interconnection work will be required with the proposed modification.

Construction Plan

NRG has significant expertise in the structuring, negotiation, execution and management of EPC of power generation projects and will use this expertise to reduce construction-phase risk and costs. NRG's procurement and construction personnel are skilled at negotiating contracts with vendors and suppliers regionally, nationally and globally to maximize quality, control cost, and control schedule.

[redacted]

Permitting

[redacted]

SCHEDULE

[redacted]

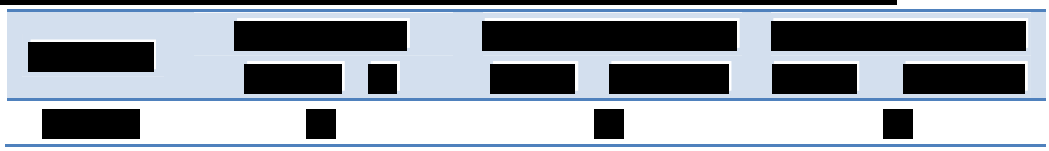
Figure 4. Units 2-4 Gas Refueling Schedule

OPTION 3 – PEAKING PROJECT

NRG believes that the peaking units option will resolve the reliability concerns in the Dunkirk region. [redacted] The modularization of the peaking configuration will provide National Grid incremental resources for reliability needs while mitigating any potential load shed risk issues. The Dunkirk site can accommodate additional peaking units beyond the initial set of six units being proposed. Pricing for additional peaking options will be provided at the request of National Grid or the NYPSC.

Peaking Units Technical Description

[redacted]



[redacted]

Electrical Interconnections

The peaking units will be subject to the NYISO interconnection study process and can be configured for interconnection based on the needs of the local transmission system. NRG believes that the interconnection study process will be conducted expeditiously because the point of interconnection already exists, and repowering would replace NRG's existing units at the site. Accordingly, the interconnection process should not delay the construction process and NRG will file an interconnection request with the NYISO sufficiently in advance to meet the [redacted] for the peaking units.

Construction Plan

NRG has significant expertise in the structuring, negotiation, execution and management of EPC of power generation projects and will use this expertise to reduce construction-phase risk and price. NRG's procurement and construction personnel are skilled at negotiating contracts with vendors and suppliers regionally, nationally and globally to maximize quality, limit cost, and control schedule. [redacted]

Permitting

[redacted]

[redacted]

SCHEDULE

[redacted]

Figure 5. Dunkirk Peaking Configuration Schedule

PROJECT BENEFITS

The NYPSC directed National Grid to evaluate the relative costs and benefits of repowering of the Dunkirk facility. Each of NRG's proposed options offers significant and quantified reliability, environmental, and ratepayer benefits.

Option 1, the Dunkirk CCGT, presents a highly-efficient natural gas facility in an area of Western New York with reliability concerns. This project will provide many specific economic benefits to the state of New York through NRG's significant capital investment, including:

- Statewide, ratepayers will see an estimated **$300 million** in energy and capacity cost savings each year for ten years. Production costs will be reduced by **$28 million** each year.
- Emissions will be reduced up to 99% compared to the existing plant, and up to 6% in the aggregate across New York State.
- Even when evaluating the Dunkirk CCGT without these net emissions benefits, the highly-efficient CCGT proposed here will displace higher-emitting units on the New York system. NRG's new units will reduce SOx by as much as 6 percent annually, NOx by as much as 4.5 percent and CO_2 by as much as 1.3 percent statewide.
- The $500+ million capital investment in the CCGT will create an average of 248 jobs per year over the construction period in the Dunkirk region, and more than 3,540 jobs per year during the operations phase throughout the state.

Option 2 – Adding natural gas to Units 2, 3, and 4 also offers ratepayer, environmental and economic benefits.

- Ratepayers in New York will see passed-through savings from capacity cost reductions estimated to be $159 million per year and $1.6 billion over the 10-year period.
- Net annual emissions will be reduced by 90% utilizing natural gas compared to coal.
- The gas addition will make use of existing infrastructure at the plant, preserving existing greenfield land.
- NRG will retain many employees and will preserve the property tax base by continuing to operate a facility at Dunkirk.

Option 3 - Installing gas-fired peaking units also provides benefits in the areas requested by the NYPSC.

- As with the gas conversion, ratepayers will enjoy significant savings from capacity cost reductions, estimated to be $100 million annually.
- Emissions will be reduced by more than 93% annually from those produced by the existing facility.

- Fewer employees will be needed to run the proposed peaking facility; however, there will be significant economic benefits from the capital investment and property tax payments for the area.

Community leaders in and around Dunkirk strongly support the continuation of power generation at Dunkirk because of the associated economic benefits it provides. New York State Senator Catherine Young chairs the PowerUpWNY Coalition, which advocates for the proposed Dunkirk CCGT. The coalition conducts media events that call attention to the need for the plant to remain in the community, and in January 2013 collected signatures from 4,000 area residents interested in seeing Dunkirk repowered with combined-cycle technology.

RATEPAYER BENEFITS

In late 2012, NRG commissioned an independent, third party consultant, Longwood Energy Group, to study the economic and ratepayer impacts from repowering the Dunkirk station with a CCGT. The study concluded that repowering the Dunkirk station could realize an estimated $300 million in annual ratepayer benefits to state and local residents.

According to the study, the Dunkirk CCGT project will lower wholesale electric prices by displacing higher-cost generation in Western New York and across the state. Over the 10 years covered by the analysis, wholesale energy prices will be an average of $1.11/MWh lower with the plant repowered than with it retired. This effect is even more pronounced for Western New York, close to the generator. The average price reduction over the period for the region in the vicinity of Dunkirk (NYISO Zones A and B) is $2.35/MWh.

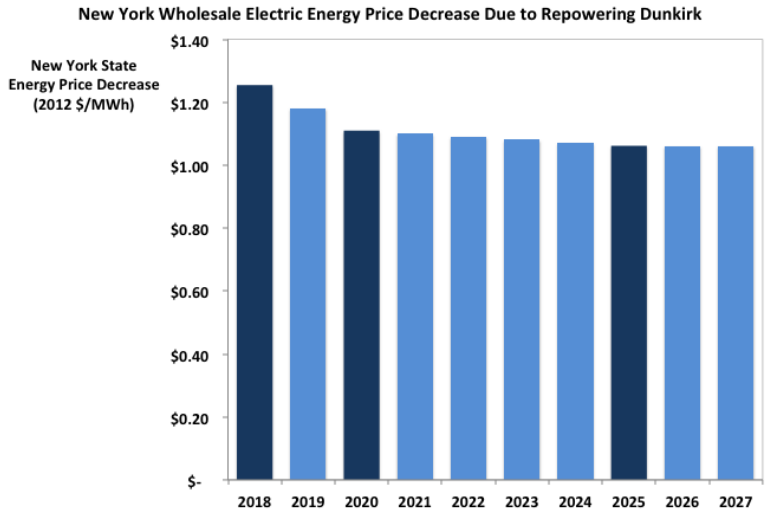


Figure 6. Impact of Repowering Dunkirk on Wholesale Electric Energy Costs.

	Dunkirk Region (Zones A & B)	Total New York State
Energy Market Savings		
Annual	**$87 million/year**	**$300 million/year**
10-Year Total	**$872 million**	**$3.0 billion**
Macroeconomic Benefits		
Gross Regional Product During 10-years Operations	**+ $136 million/year**	**+ $350 million/year**
Total Jobs During Construction	**+ 248 on average**	**$308 on average**
Total Jobs During 10 Years Operations	**+ 1,390/year on average**	**+ 3,540/year on average**

Table 5. Benefits of the Dunkirk CCGT

Another important measure of cost savings is the production cost. Production cost is the generators' cost to produce electricity including variable items such as fuel and emissions and some operations and maintenance costs. The Longwood Energy Group analysis found that average production savings would be $28 million each year, totaling more than $280 million over the 10-year study period.

Ratepayers will enjoy savings in all of the proposed scenarios because of the addition of generation capacity in the state. NRG estimates that market savings for Option 2, the gas conversion, will be similar to those found by Longwood Energy Group for the Dunkirk CCGT – approximately $159 million annually statewide. The peaking units proposed in Option 3 will be $108 million per year in statewide ratepayer savings.

MACROECONOMIC BENEFITS

All the repowering options at the Dunkirk station will provide economic benefits to the region and to New York State. Perhaps the most significant of these benefits will be preserving the property taxes paid by the facility. NRG's Dunkirk station is the largest taxpayer in Dunkirk and Chautauqua County, with payments to Chautauqua County, the city of Dunkirk, and the Dunkirk City School District.

All the options proposed for repowering Dunkirk will maintain a property tax base, if at different levels. In addition, jobs will be created that are directly related to construction and operation of the repowered facility. These jobs and the capital investment in each scenario will extend throughout the economy, providing benefits by way of indirect jobs created and contributions to the gross state and gross regional products.

The Dunkirk CCGT provides the most significant benefits through direct jobs related to construction and operations. Additionally, the ratepayer benefits result in business and household savings that are

plowed back into the economy. The independent Dunkirk economic analysis relied on a model developed by Regional Economic Models, Inc., using the capital and operations costs related to building the new Dunkirk plant. Benefits to the local and statewide economy accrue from spending during the construction phase, annual operations and maintenance expenses, and ratepayer benefits due to reduced energy and capacity costs.

NRG is proposing more than $500 million in investment in Dunkirk over the CCGT construction period, resulting in an average of more than 500 jobs per year, generated largely within the region.

The economic effect of building and operating the new Dunkirk plant is magnified when indirect jobs are taken into account. Over the construction and 10-year operation periods studied, about 1,390 jobs will be created annually in the Dunkirk area, and 3,540 on a statewide basis. The gross state product increase mirrors the employment benefits, with $350 million added annually. A substantial portion of this economic growth, $136 million per year, remains in the Dunkirk region.

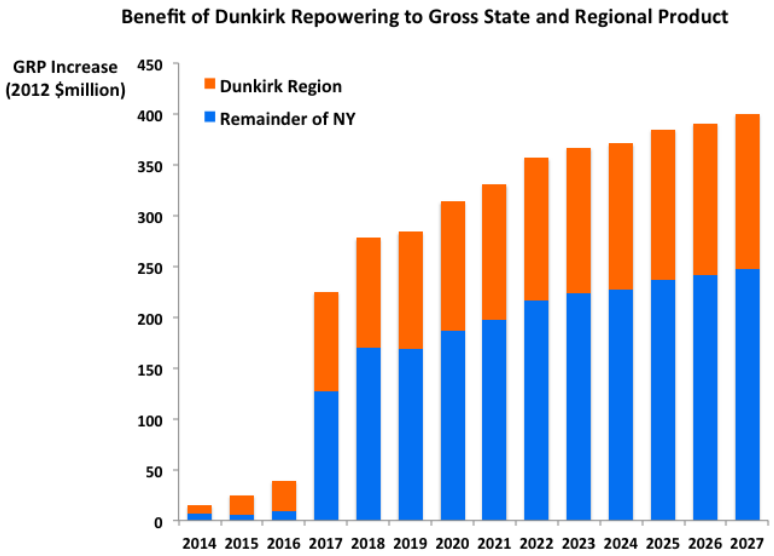


Figure 2. Projected Annual Impact on Gross Regional Product.

Natural gas additions to Units 2, 3 and 4 will retain staff and provide property tax payments in Dunkirk as opposed to retiring the plant. Installing Peaking Units at Dunkirk will involve a capital investment of about $300 million.

All the options proposed by NRG will result in economic benefits related to construction as well as operation. Many of these benefits flow directly to the surrounding community during construction and ongoing operations. Transmission upgrades will not deliver these benefits, which multiply throughout the community as well as the state.

ENVIRONMENTAL BENEFITS

NRG's proposed Options at Dunkirk will all provide considerable environmental benefits through emissions reductions. In addition, the repowered facility in all cases will use the existing facility and resources, and require few or no land or water use changes.

EMISSIONS

Replacing the existing coal plant with a new, state-of-the-art CCGT will provide significant environmental benefits to the local community. While NRG's existing Dunkirk coal units are among the cleanest coal-fired units in the country, the high efficiency of the new CCGT units coupled with the environmental profile of natural gas produce far fewer emissions per kilowatt produced – which means fewer emissions for the residents of Dunkirk and all of Western New York. NRG estimates that the emissions reductions for Option 1, which includes gas additions to Unit 2, would be an average of 81% compared to the existing plant. In particular, emissions of sulfur dioxide, the precursor of acid rain, and nitrogen oxide, the precursor to ground-level ozone and smog, would be reduced 95% and almost 100%, respectively.

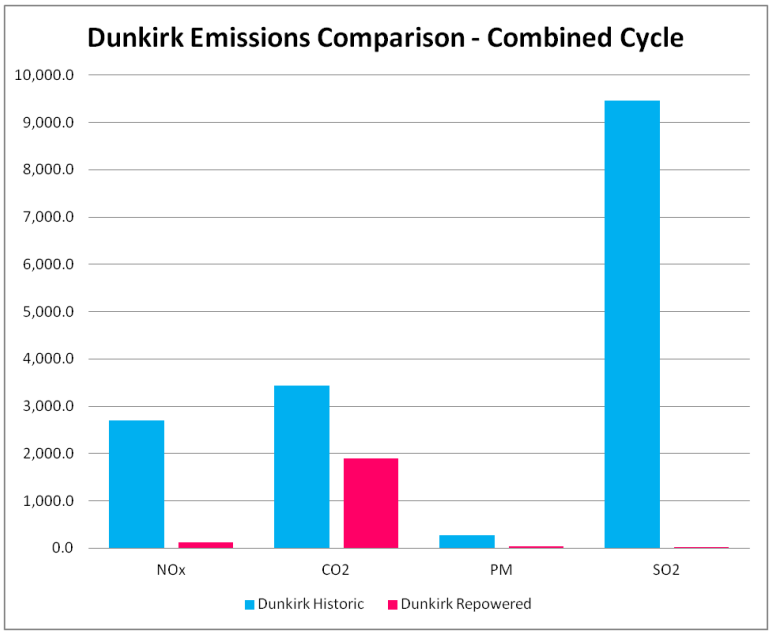


Figure 3. Comparative Emissions of Existing and New Dunkirk Facility

Adding a highly-efficient combined cycle natural gas plant in Western New York will also decrease emissions statewide. A clean, efficient Dunkirk plant will be dispatched ahead of less-efficient and higher emitting generators. Independent analysis shows that particularly in the earlier years before additional wind energy plants come online to meet New York State renewable energy targets[1], the Dunkirk CCGT would reduce sulfur dioxide and nitrogen oxide, as well as carbon dioxide, the leading greenhouse gas, across the state.

[1] NY State Transmission Assessment & Reliability Study (STARS) Phase II Study Report; Apr. 30, 2012; pg 28.

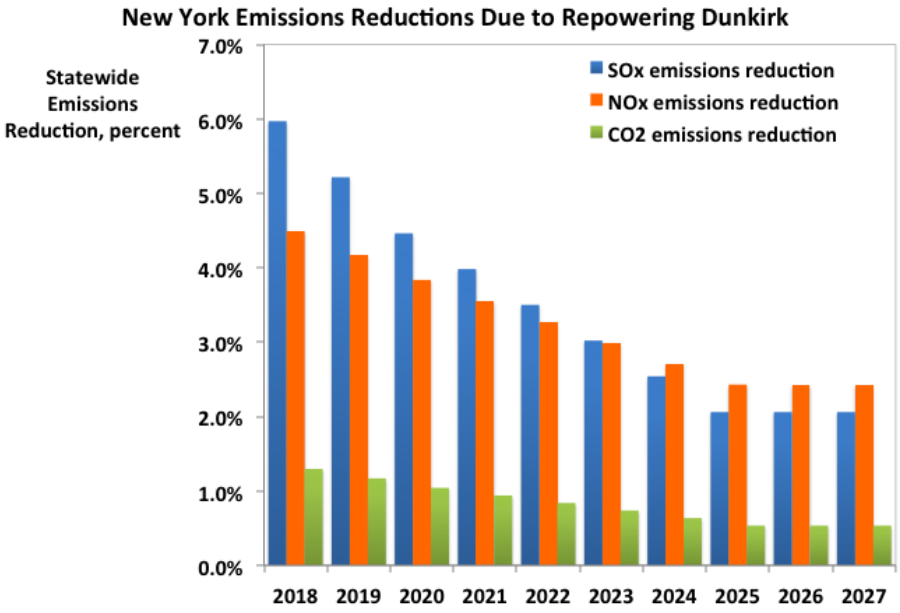


Figure 4. Emissions Reductions from a Dunkirk CCGT

Option 2, a gas addition to three of the existing coal units would also have significant emissions benefits compared to the current Dunkirk facility. Annual emissions of nitrogen oxide, carbon dioxide, particulate matter, and sulfur dioxide will be reduced by about 90% overall.

[redacted]

Figure 5. Gas Conversion Emissions Benefits

The peaking units presented in Option 3 will have similar environmental benefits related to the use of natural gas rather than coal as fuel. [redacted]

Supporting Increased Wind Energy Installations

Each of NRG's proposed options will support the anticipated expansion of wind generation in Western New York. The recent New York State Transmission Assessment and Reliability Study modeled wind generation in New York, showing it growing from 1300 MW today to 6000 MW, and some estimates project as much as 8,000 MW of wind by 2030.[2] Much of this capacity would come from Western New York.

[2] NY State Transmission Assessment & Reliability Study (STARS) Phase II Study Report; Apr. 30, 2012; pg 28.

This is relevant because the intermittent nature of wind generation results in unpredictable generating patterns that create challenges for grid operators. A recent New York State Energy Research and Development Authority ("NYSERDA") study identified the challenges with incorporating large scale wind into the existing system:

> "The bulk power system will experience higher magnitude ramping events, and to accommodate the increased variability and uncertainty of variable generation the system will need to commit proportionately more dispatchable resources to maintain system flexibility.[3]"

The NYSERDA study indicates that facilities such as those proposed by NRG will provide a great deal of that ramping capability.[4] Additionally, falling natural gas prices and increasing environmental restrictions continue to stress New York coal plant power generation. With declining conventional generation capacity in-state, there is an increasing need for units that can provide ramping services to balance wind integration on the system.

The Dunkirk CCGT, if equipped with fast-start technology, will best compliment additional renewable development in the region, helping the state meet renewable energy objectives while ensuring National Grid has all the tools it needs to stabilize grid supply. New CCGT technology is capable of 10-minute response and flexible load following capabilities to respond to changing grid conditions. This technology offers both a reliability and economic benefit because it reduces the potential for out-of-merit costs that might otherwise be incurred with other, less flexible resources that require advanced start up and prolonged minimum run times.

Land and Water Use

Land use and water use will not be significantly altered with any of the options proposed because all three of NRG's proposals will use land already within the boundaries of the current Dunkirk plant. No additional land acquisition and disturbance will be necessary. The use of natural gas rather than coal as fuel will also decrease coal transportation traffic even though the infrastructure will remain in place.

The Dunkirk plant currently uses a once-through cooling process. However, the CCGT proposed in Option 1 will include a new evaporative-cooling system in order to comply with existing NY State DEC policy for new generation. Unit 2 will continue to utilize the existing cooling system, which has been upgraded to meet Best Technology Available, employing the use of fine mesh travelling screens.

Option 2 will utilize the existing cooling system which has been recently upgraded to meet Best Technology Available, utilizing state-of-the-art fine mesh traveling screens.

[3] New York ISO; June 2010; NYISO Wind Generation Study; pg. 4.
[4] New York ISO; June 2010; NYISO Wind Generation Study; pg. 32.

Option 3 peaking units are simple cycle and will not require cooling water.

The Dunkirk facility is within an Environmental Justice review area and NRG will comply with the appropriate Environmental Justice review process as regulated.

LOCAL SUPPORT

PowerUpWNY (Power Up Western New York) is a coalition of business, labor, and civic groups and local and state politicians focused on supporting smart, long-term energy projects in Western New York. Chaired by New York State Senator Catharine Young (R, C, I, Olean), PowerUpWNY strongly backs the repowering of the existing Dunkirk plant with modern and efficient combined-cycle technology. The Coalition also broadly supports Governor Cuomo's plan to build an "Energy Highway."

Other members of the Coalition include New York Assemblyman Andy Goodell; IBEW Local 97; Mayor of Dunkirk Al Dolce; Chautauqua County Executive Greg Edwards; William Daley, CEO and Rich Dixon, CFO of the Chautauqua County Industrial Development Agency; Jay Gould, Chairman of the Chautauqua County Legislature; Chautauqua County Chamber of Commerce; United Way of Northern Chautauqua County; Dunkirk Area Central Labor Council; Sheet Metal Workers Local 112; IBEW Local 106; the Buffalo Building and Construction Trades Council; the Southwestern NY Building and Construction Trades Council; Northeast Regional Council of Carpenters; Eastern Millwright Regional Council; and SUNY Fredonia.

In January 2013, PowerUpWNY sent more than 4,000 signatures to Governor Andrew Cuomo and the Energy Highway Task Force members in support of repowering the Dunkirk facility because of the benefits identified by the coalition:

- Keeping energy investment in-state
- Improving the reliability of the electrical grid in Western New York
- Preserving jobs
- Generating dramatically cleaner energy
- Increasing electrical system efficiency
- Ensuring a predictable and stable tax base in Chautauqua County and Dunkirk
- Providing support for renewable energy generation such as wind power

Attachment A

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	

Attachment A

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	
[redacted]	[redacted]	

[redacted]

Attachment B

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Attachment B

[redacted]

Attachment C

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted] be

Attachment C