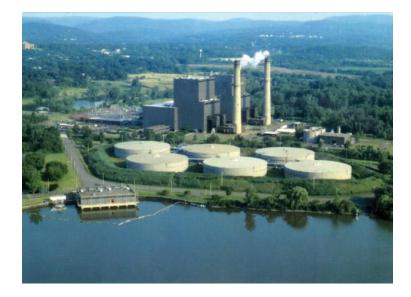


# NRG BOWLINE REPOWERING PROJECT VOLUME 1 - PROPOSAL



INQUIRY NUMBER Q13-5441LW CONTINGENCY PROCUREMENT OF GENERATION AND TRANSMISSION

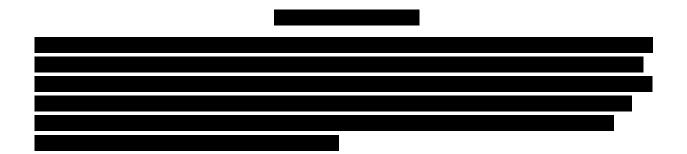
SUBMITTED TO: NEW YORK POWER AUTHORITY

DATE: MAY 20, 2013



The power to change life. The energy to make it happen:





#### Safe Harbor for Forward Looking Statements

This document contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to certain risks, uncertainties and assumptions and typically can be identified by the use of words such as "expect," "estimate," "should," "anticipate," "forecast," "plan," "guidance," "believe" and similar terms and include our strategy, expected benefits and timing of the Astoria project. Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, weather conditions, competition and changes in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in government regulation of markets and of environmental emissions, the condition of capital markets generally, our ability to access capital markets, unanticipated outages at our generation facilities, adverse results in current and future litigation, failure to identify or successfully implement acquisitions and repowerings, the inability to implement value enhancing improvements to plant operations and companywide processes, and our ability to realize value through our hedging strategy.

NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The foregoing review of factors that could cause NRG's actual results to differ materially from those contemplated in the forward-looking statements included in this Response should be considered in connection with information regarding risks and uncertainties that may affect NRG's future results included in NRG's filings with the Securities and Exchange Commission at <u>www.sec.gov</u>.



May 20, 2013 DELIVERED BY HAND

Mr. Len Walker, Manager of Special Projects New York Power Authority 123 Main Street White Plains, NY 10601-3170

#### New York Power Authority ("NYPA") Inquiry No. Q13-5441LW Response Submittal

Dear Mr. Walker:

On behalf of NRG, Energy, Inc. ("NRG"), I am delighted to provide the enclosed bid for the Bowline Repowering Project in response to the Request for Proposals ("RFP") for Inquiry Number Q13-5441LW for the Contingency Procurement of Generation and Transmission issued April 3, 2013.

The enclosed bid for the Bowline Repowering Project (the "Project") meets the requirements included in the RFP:

- this bid is firm through December 31, 2013 and approved by NRG's Board of Directors;
- the Project's target Commercial Operation Date ("COD") is June 1, 2016;
- the Project will be located in NYISO Load Zone G; and

Again, we are excited to provide the Project as a response to the RFP. The NRG team is willing and ready to advance this exciting project forward, in cooperation with New York and the New York Power Authority. Please let either me, or Mike Sommer, the lead developer for the Project, know if you have any questions.

Kindest Regards,

illia Lu Davis

William Lee Davis Senior Vice President and East Region President NRG Energy, Inc.



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#### **RFP Data Attachments**

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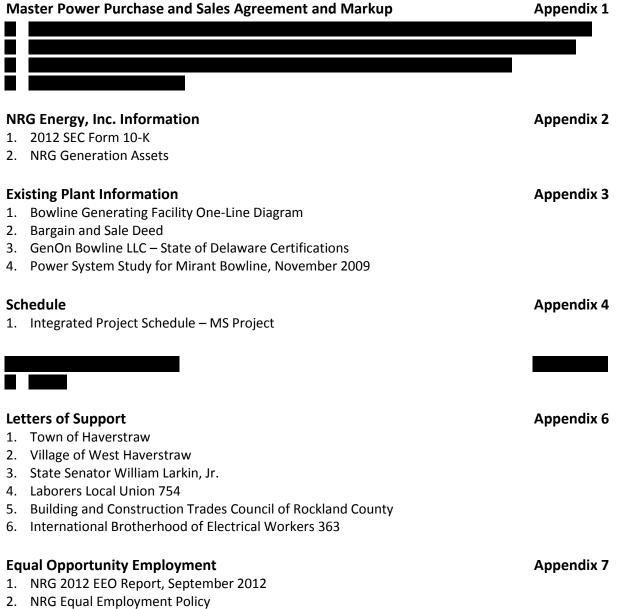
#### **NYPA Disclosures and Forms**

Non-Collusive Proposal Certification P.O. Address of the Bidder DUNS Number Information Bid Addendum No. 1 Confirmation Preliminary Subcontracting Form (C-1) Geographic Origin Form and Documentation Checklist (E-1 and E-2) Bidder Disclosure Forms (J-1 – J-4)



## LIST OF APPENDICES

#### VOLUME 2

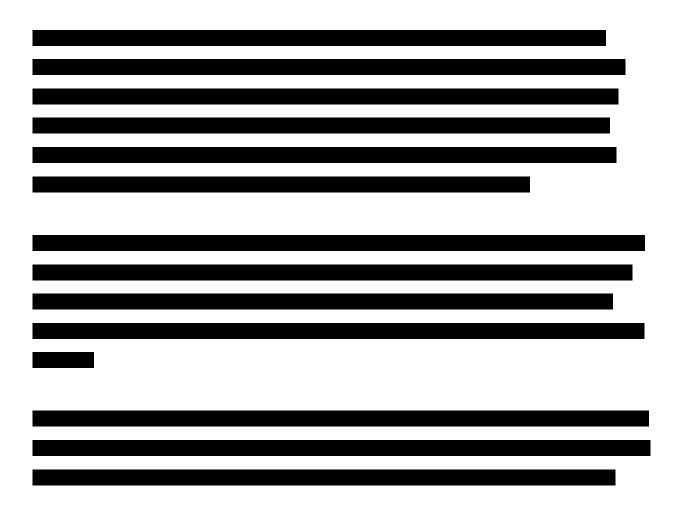


3. Contractor Staffing Plan, Form G-1



## EXECUTIVE SUMMARY

NRG Energy, Inc. ("NRG") is pleased to offer the Bowline Repowering Project (the "Project") in response to the New York Power Authority ("NYPA") "Contingency Procurement of Generation and Transmission" Request for Proposals (the "RFP"). As an existing generator in New York, NRG is uniquely positioned to offer repowering and incremental generation solutions supported by the experienced operations and management personnel who have worked in New York for many years. NRG's experience in developing, permitting and constructing projects in New York and across the United States provides a high level of confidence that the Project will be delivered on time and help achieve the goals of the Energy Highway Task Force and the RFP process.





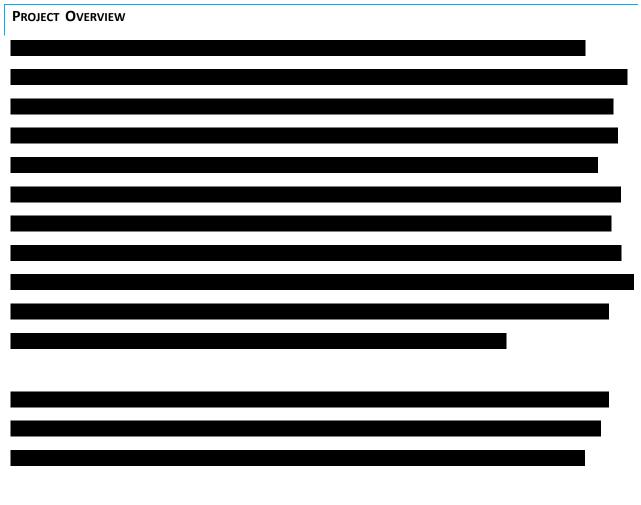
Overall, NRG believes the Project is a competitive and beneficial proposal that contributes to the stated goals of the State of New York as articulated in the RFP process. The remainder of this document will detail this exciting Project. We are excited about the Project, and you should be, too. The NRG team is ready to move the Project forward, and we are ready to meet with you to address any questions you have.



## PROJECT DESCRIPTION

#### **COMPANY OVERVIEW**

NRG is a Fortune 300 and S&P 500 Index company, and a pioneer in developing cleaner and smarter energy choices for our customers: whether as one of the largest solar power developers in the country, or by building eVgo, the first privately funded electric vehicle charging infrastructure, or by giving customers the latest smart energy solutions to better manage their energy use. Our diverse power generating facilities include over 47,000 megawatts ("MW") from solar, wind, fossil and nuclear—enough to support almost 40 million homes. Our retail electricity providers—Reliant, Green Mountain Energy Company and Energy Plus—and our district heating and cooling operations serve more than two million customers in 16 states.





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## PRICING

NRG is pleased to submit the following pricing for the conforming and proposed alternative contract structures. The proposed pricing is firm through December 31, 2013.

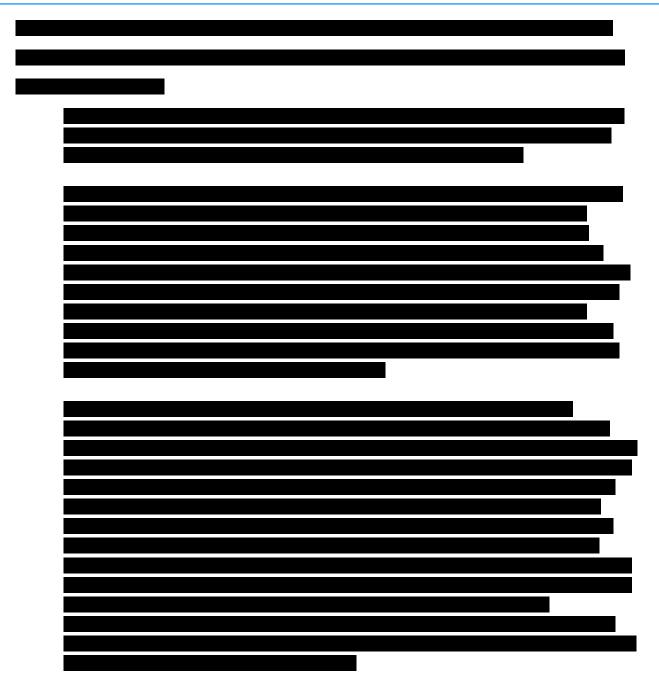






HALTING MECHANISM	



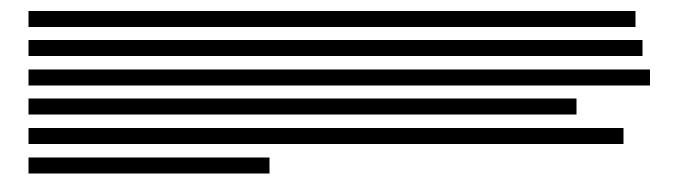


## SCHEDULE



NRG believes one major strength of the Project is the ability to meet the June 1, 2016 COD with minimal delay risk. This certainty is based upon the ability for NYPA and the PSC to meet the milestone dates offered in the RFP.







## **BIDDER QUALIFICATIONS**

GenOn Bowline, LLC, a wholly-owned subsidiary of NRG, was formed as a limited liability company in Delaware in 1998. Its Certificate of Formation was amended to reflect name changes, most recently on December 3, 2010, as evidenced in Appendix 3. GenOn Bowline, LLC's site control is evidenced by the Deed of Conveyance dated June 30, 1999 between Orange and Rockland Utilities, Inc. of New York, Inc. and Southern Energy Bowline LLC (now GenOn Bowline LLC), as evidenced by Appendix 3<sup>1</sup>.

NRG is a public corporation organized in Delaware. See Appendix 2 for NRG's 2012 Form 10-K filing with the Securities and Exchange Commission for additional information. GenOn Bowline, LLC does not produce audited financial statements. In accordance with the instructions of Section 8.7 of the NYPA Information for Proposers for RFP NO. Q13-5441LW, the financial statements for the three most recent fiscal years of GenOn Bowline, LLC's parent, NRG, are included in the attached NRG Form 10-K beginning on page 111.

NRG and its subsidiaries own and operate electric generating facilities and provide retail electric power throughout large parts of the United States. Accordingly, at any time, NRG and its subsidiaries can be the subject of multiple civil proceedings. In accordance with the instructions of Section 8.6 of the NYPA Information for Proposers for RFP NO. Q13-5441LW, details regarding the current status of these proceedings are detailed in the NRG Form 10-K, which is attached hereto as Appendix 2, on pages 51-56.

All products and services provided by the Project will be in compliance with all applicable legal and regulatory requirements.

<sup>&</sup>lt;sup>1</sup> NRG intends to amend GenOn Bowline, LLC's Certificate of Formation to change its name to NRG Bowline LLC in the very near term. Ownership and management of the entity will not be changing.



#### NRG ENERGY, INC. OVERVIEW

NRG is a competitive power and energy company that aspires to be a leader in the way the industry and consumers think about, use, produce and deliver energy and energy services in major competitive power markets in the United States. NRG's wholesale operations are engaged in the ownership and operation of power generation facilities; the trading of energy, capacity and related products; and the transacting in and trading of fuel and transportation services. Second, while leveraging its core wholesale power business, NRG's retail division is engaged in the supply of energy, services, and innovative, sustainable products to retail customers in competitive markets through multiple channels and brands like Reliant Energy, Green Mountain Energy, and Energy Plus. Finally, NRG is a clean energy leader and is focused on the deployment and commercialization of potentially transformative technologies, including electric vehicles, distributed solar and smart meter technology, which have already demonstrated the potential to change the nature of the power supply industry.

#### BUSINESS HISTORY IN NEW YORK

NRG began its commitment to New York in 1999 by investing approximately \$945 million in five fossil-fueled power generating facilities, making NRG one of the top investors within New York. In December 2012, NRG completed its acquisition of GenOn Energy, Inc., which allowed NRG to expand its wholesale generation base by adding the Bowline facility. Examples of NRG's continuing commitment to the State include:

- more than 4,250 MW of net generating capacity;
- more than 500 employees dedicated to generating power safely and economically;
- converting its Western New York coal-fired units in 2005 to Powder River Basin ("PRB") low-sulfur coal which dramatically improves environmental performance;
- investing \$300 million to retrofit Western New York coal units with emissions controls systems that reduce NOx, sulfur dioxide SO2, and particulate matter ("PM") emissions; and



• continued commitment to redeveloping existing New York facilities to improve emissions and efficiency within New York.

#### CONTACT INFORMATION

For additional information related to this submission, please contact:

Michael Sommer Director, Development NRG Energy, Inc. 211 Carnegie Center Princeton, NJ 08540 Office: 609.524.5153 Email: <u>michael.sommer@nrgenergy.com</u>

NRG'S EXPERIENCE IN ELECTRIC GENERATION AND SYSTEM OPERATOR

NRG is one of the largest and most diversified power generation operators in the United States, with over 47,000 MW of fossil fuel and nuclear generation capacity across 100 plants. The company has an additional 1,678 MW under construction. NRG's power generation facilities are diversified by fuel-type, dispatch level and region, which helps mitigate the risks associated with fuel price volatility and market demand cycles.

A full list of NRG's existing generating plants is located in Appendix 2.

DESCRIPTION OF NRG'S NYISO MEMBERSHIP STATUS

NRG is a full market participant and a full member of the NYISO. NRG is on the management committee, and has been a member of NYISO since NYISO's establishment in 1999.

Since 1999, NRG has participated in several NYISO committees and working groups that deal with issues of market structure and operations. The NYISO committees that NRG focuses on are listed below.



<u>NYISO Management Committee ("MC")</u> – The MC makes recommendations to the NYISO Board. The MC also votes on motions brought by the Business Issues Committee and the Operating Committee. NRG attends all MC meetings where votes take place regarding recommendation of rule changes of interest to the wholesale market place. In addition, NRG is active in the Budget and Priorities Working Group and monitors the discussions on NYISO's project prioritization efforts.

<u>Business Issues Committee ("BIC")</u> – The BIC votes on motions brought by the various working groups established from time to time. Some of the important working groups to NRG are:

- <u>Installed Capacity Working Group</u> NRG works on capacity market design, auction procedures, as described in the Installed Capacity manual, and rules for participating in capacity markets.
- Load Forecasting Task Force NRG monitors the development of this group's production of annual load forecasts used for the Installed Reserve Margin and Locational Minimum Installed Capacity Requirements.
- <u>Market Issues Working Group</u> NRG monitors and advocates rules for pricing of energy and ancillary service products.
- <u>Black Start Task Force</u> NRG actively engages in discussions on Black Start requirements and compensation in New York.

<u>Operating Committee ("OC")</u> - The OC votes on motions brought by the working groups that focus on operational issues. Those in which NRG is most active are:

- <u>Transmission Planning Advisory Subcommittee ("TPAS")</u> NRG has a strong interest in the TPAS agenda and priorities to ensure advancement of critical projects, currently in the interconnection queue. TPAS oversees NYISO's administration of the queue and recommends for OC approval System Reliability Impact Study scopes and final reports.
  - Interconnection Project Facilities Study Working Group NRG has strong interest and is engaged in the construction and assumptions of allocations of System Deliverability Upgrades and System Upgrade Facilities for a Class Year.



- <u>Electric System Planning Working Group</u> NRG provides input into this group's primary functions – development of the Congestion Assessment and Resource Integration Study, the annual Reliability Needs Assessment, and the Comprehensive Reliability Plan.
- Interconnection Issues Task Force NRG assists this group with development of interconnection rules that apply for qualification to sell NYISO products for new generation interconnections.
- <u>Electric Gas Coordination Working Group</u> NRG has been engaged in the NYISO's new efforts to understand and eliminate the seams between the Electric and Gas industries in New York.

Other groups that report into BIC and OC, in which NRG participates frequently include:

- Price Responsive Load Working Group;
- Credit Policy Working Group;
- Billing and Accounting Working Group;
- System Operations Advisory Subcommittee;
- Reactive Power Working Group; and
- Restoration Working Group.

In summary, NRG fully supports and applies its resources and attention to the NYISO stakeholder process. NRG's ownership of a geographically- and technologically-diverse set of generating resources positions the company to provide positive, meaningful inputs to the stakeholder process.

#### CORE PROJECT TEAM

NRG has assembled a world-class team to bring the Project to fruition. NRG is organized both by geographic region as well as by professional function with substantial interaction with NRG's senior and executive staff level. The overall lead for the Project is a senior developer working with a cross-functional team from NRG's corporate staff. For instance, the development engineering group working on this project consists of both regional engineers as well as senior level corporate engineers located in NRG's headquarters in Princeton.



The biographies for each of the team members provided below ultimately fall into one of the following areas of NRG: NRG East Region, Engineering and Construction, Operations, Commercial Operations (fuel and power market operations), Chief Financial Officer (finance, treasury, accounting, tax, and IT) and the General Counsel (both regulatory and transactional).

#### Senior Vice President and Regional President, East - Lee Davis

Lee Davis serves as Senior Vice President and Regional President, East, overseeing commercial and operating activities and business development for NRG Energy's largest region by generating capacity. With almost 22,000 megawatts of generating assets in the region, he is responsible for leading efforts to maximize the value of existing units, repower generating sites with more efficient units, reduce emissions from the region's fossil fueled plants and build new cleaner energy resources. Mr. Davis joined NRG in 2006 as Vice President of New York Development and took on the expanded role of Vice President of Northeast Business Development in January 2010. Prior to his current position at NRG, he took on various roles as a Vice President for Mirant Corporation and as Vice President of Strategic Origination at Calpine Corporation. Mr. Davis has a bachelor's degree from the Georgia Institute of Technology and a master of business administration degree from Emory University.

#### Director, Development – Michael Sommer

Michael Sommer is a Director of Development for the East Region of NRG and manages the development of repowering and new generation projects. Mr. Sommer joined NRG in 2006 as Engineering Manager providing technical and construction input and support to development projects in the East and West Regions of NRG. Prior to joining NRG, Mr. Sommer worked in project development, engineering, construction, and operations at Calpine Corporation. Other experience includes engineering and project management at EPC and engineering firms. Mr. Sommer has a bachelor's degree in mechanical engineering from the University of Kansas.

#### Plant Manager, Bowline Generating Station - Bill Metzger

Bill Metzger has been Plant Manager of the Bowline Generating facility since 2006. Bowline Generating Station is located in West Haverstraw on 150 acres consisting of 2 natural gas and No. 6 fuel oil fired units. Mr. Metzger is also responsible for the Lovett site and the Hudson Valley Gas Corporation (HVG), both located in Rockland County. Mr. Metzger started with Orange and Rockland Util. in 1991 in the Major Maintenance Department supporting planned outages at both the Lovett and Bowline Generating Stations. He served as a Naval Officer from 1980 through 1988, reaching the rank of Lieutenant. Mr. Metzger has a bachelor's degree from the University of Rochester in Independent Engineering with Concentration in Chemical Engineering.



#### General Counsel, East Region - Elizabeth Quirk-Hendry

Elizabeth Quirk-Hendry is General Counsel of NRG's East Region and has been with NRG since August 2010. Ms. Quirk-Hendry manages the legal issues related to all generating assets in the region including NRG's GenConn joint venture development project. Her practice covers a variety of electric technologies, including conventional fossil fuel technology, solar and on-shore wind from both a development and operations perspective. Ms. Quirk-Hendry has practiced law in the energy sector for more than eighteen years. She is a graduate of New York University School of Law and Colgate University.

#### Senior Manager, Environmental Compliance - Tom Coates

Tom Coates has been the Regional Manager of Environmental Business for the Company's New York Region since June 1999. He is responsible for environmental compliance and permitting for the NRG New York power generating facilities. Before coming to NRG, Mr. Coates served as the Environmental Manager for Niagara Mohawk Power Corporation's Fossil and Hydro Generation Business Unit. He has an extensive power plant background managing air and water program compliance and permitting. Before entering the electric generating business in 1984, he held various research positions with the Freshwater Institute at the Rensselaer Polytechnic Institute and the New York State University Research Center at Oswego. He also worked as a fisheries biologist with the US Fish and Wildlife Service. Mr. Coates holds a Bachelor's degree in Aquatic Zoology from the University of Montana.

#### Vice President, Treasury - Gaetan Frotte

Gaetan Frotte is VP-Assistant Treasurer at NRG Energy, Inc. In addition to being responsible for the corporate cash management and debt compliance functions, he leads the structured financings of all new NRG power generation projects. Prior to joining NRG Energy in 2006, he served for 7 years for Reliant Energy in Houston at various corporate finance positions and worked before that for a subsidiary of France Telecom in Paris and Arlington, Virginia. Mr. Frotte graduated in 1999 from the University of Virginia's Darden School of Business.

#### Director Asset Management, East - Danita Park

Danita Park joined NRG as the Director Asset Management serving the East Region in 2012. Ms. Park is responsible for a fleet of nearly 7,000 MWs of oil and natural gas assets located in New York, New Jersey, Pennsylvania and New England. In this role, she develops and executes strategies to maximize the profit of each asset in her fleet. Ms. Park joined NRG from Calpine Corporation where she was responsible for optimizing assets with long term contracts; developing day-ahead bidding strategy; and improving P & L by increasing recovery of start-up costs. Before joining Calpine, she held several positions with Dynegy Power Marketing, including managing the real time commercial operations in the Northeast. Ms. Park holds a Bachelor of Science degree in



Biochemistry and a Masters of Business Administration, Finance, both from the University of Calgary, Canada.

#### Vice President, Asset Management - Judith Lagano

Judith Lagano is a Vice President of Asset Management for NRG's East Region with responsibility for nearly 20,000MW of generation in NY, PJM, New England, and Florida. Ms. Lagano is an energy industry professional with more than 25 years of experience in the power business in engineering and asset management. She graduated with a BS in Civil and Environmental Engineering from Cornell University and an MBA from Baruch College. She is also a registered Professional Engineer in New York and New Jersey. Before joining NRG Energy in 2001, she was General Manager of Hydroelectric and Cogeneration Projects for United American Energy in Woodcliff Lake, NJ.

#### Vice President, Wholesale Regulatory Strategy & Policy - Bradley Kranz

Bradley Kranz is Vice President of Wholesale Regulatory Strategy & Policy, East Region. Mr. Kranz has been with NRG since 2007. He is responsible for managing regulatory activities in the New York, New England and PJM market regions. Additionally, Mr. Kranz oversees NRG's wholesale regulatory interactions with the East Region ISO/RTOs, state public service commissions and FERC. Prior to joining NRG, Mr. Kranz worked for the New York Independent System Operator (NYISO) where he held various positions in Operations, Engineering and Market Services. Before the NYISO, he was employed by Niagara Mohawk Power Corporation in upstate New York as an engineer at the Nine Mile Point Nuclear station. Mr. Kranz holds an MBA from Union College and a Bachelor's degree in Mechanical Engineering from the Rochester Institute of Technology.

#### Vice President, Government Affairs East Region - Raymond Long

Raymond G. Long is the Vice President of Government Affairs for NRG Energy's East Region. Mr. Long has more than 20 years of experience managing corporate external campaigns and initiatives and has been with NRG since 2003. He is responsible for managing the external activities for NRG's portfolio of conventional generation, retail and renewable development in eastern United States – from Florida to Maine and west to Ohio. Additionally, Mr. Long manages legislative, regulatory and communications issues. Prior to joining NRG, Mr. Long served as Director of External Affairs for threeplus years at Mirant Corporation, where he worked on state and federal issues in the United States and Eastern Canada. Before joining Mirant, Mr. Long spent eight years representing corporate clients on public affairs and strategic communications issues in the New England States. Mr. Long has extensive experience working on corporate and political campaigns. Mr. Long holds a Juris Doctor from Suffolk University Law School and a Bachelor of Science in Public Policy and Administration from Suffolk University.



#### Vice President, Construction – General Projects - Gary Devore

Gary M. Devore serves as Vice President of NRG's Engineering and Construction department, Generation Projects. In this role, Mr. Devore has safety, budget, schedule and quality oversight responsibility for NRG's renewable and various fossil fuel-based (principally natural gas) new generation platform projects. Mr. Devore joined NRG in 2010 as Vice President of Construction. Prior to his current assignment with NRG, he has accumulated 40 years of experience in the power and petrochemical design, construction, operations & maintenance and commissioning aspects of large capital projects. During his lengthy career, he has managed, or been directly involved with, the construction of more than 30 gigawatts of new fossil-fuel generation, including natural gas, oil and coal on three continents. Mr. Devore has a bachelor's degree in mechanical engineering from Texas A&M University and holds a professional engineer's license in his home state of Texas.

#### Senior Vice President, Development Engineering, Procurement & Construction - Ben Trammel

Ben Trammell serves as Senior Vice President of Engineering & Construction, overseeing NRG's \$8.8 billion portfolio of new-generation facility construction and environmental compliance projects. He is responsible for overseeing development engineering support, EPC project formation, project and construction management, and start-up and commissioning for all major NRG projects. Mr. Trammell joined NRG in early 2012, having previously served in various utility and IPP planning, development, engineering, construction and generation plant operations management capacities for NextEra, Dynegy, Oglethorpe Power, and Southern Company. Mr. Trammell has a Bachelor of Science degree in Mechanical Engineering from Clemson University and executive leadership certifications from Center for Creative Leadership and Rice University.

**Director, Project Development, Engineering and Construction** – *Richard Eckersley* Richard Eckersley is responsible for providing technical engineering support for the development of new construction projects at NRG Energy, Inc. In this capacity, Mr. Eckersley manages cycle selection and optimization, scope development, estimating, and scheduling activities, as well as development and implementation of contracting strategies, for NRG generation projects prior to turnover to the assigned project execution team. Before joining NRG Energy, Mr. Eckersley was Director of Planning and Fleet Initiatives for GenOn Energy, with responsibility for managing project development, analysis, and implementation efforts within the Generation Operations Department for projects having multi-plant and/or significant corporate strategy implications, including initial development activities on the proposed Bowline 3 Project. Previously, Mr. Eckersley held a number of engineering, development and procurement positions at RRI Energy and its predecessor companies providing support of new generation projects and the existing generation fleet. Mr. Eckersley holds a BSEE degree from the University of Texas at Arlington.



#### Director, Natural Gas - Jim Dauer

Jim Dauer is Director of Natural Gas at NRG Power Marketing, LLC, the commercial operations subsidiary of NRG Energy. He is responsible for supplying NRG's 30,000 MW of gas-fueled generation in New York, New England, PJM, Texas, Louisiana and California. Mr. Dauer and his staff also manage transport and storage integral to providing the flexibility required to supply NRG's diverse gas-fueled portfolio. Mr. Dauer has held this position since October, 2003. Previously, he served as a senior trader on the gas desk for NRG.

#### Director, Regional Portfolio - Michael Evans

Michael Evans serves as Portfolio Director for the New York, New England and Congestion Management Desks and has been involved in the New York markets since 1985. He joined NRG Energy in August 2004 as a Senior Trader and became the New York Portfolio Director in June 2006. Mr. Evans became Portfolio Director of the New England and Congestion Management desks in December 2012. Before joining NRG he held trading positions at Aquila Energy Marketing Corporation for six years and American Electric Power Corporation for two years. Mr. Evans started his career at the Long Island Lighting Company and held various positions in the Operations Department for 12 years. He graduated from Clarkson University with a Bachelor of Science in Electrical Engineering.

#### Director, Environmental Policy, East - Shawn Konary

Shawn Konary serves as Director for NRG Energy's East Region Environmental policy and compliance matters. With approximately 22,000 megawatts of generating assets in the region, he is responsible for leading efforts to ensure compliance with all existing permits and regulations, track the implications of future environmental legislation and regulatory initiatives, permit the repowering of the existing generating sites with more efficient units, reduce emissions from the region's fossil fueled plants and permit new cleaner energy resources. Prior to coming to NRG, Mr. Konary served as the Environmental Policy Director for GenOn Energy's Northeast and Southeast regions. Mr. Konary has over 20 years of experience in the electric power and steam cogeneration industry. Previously, Mr. Konary held various leadership positions at Mirant Corporation, Southern Company, Commonwealth Energy, Commonwealth Electric Company, Commonwealth Gas Company and Cambridge Electric Light Company (now NSTAR), overseeing environmental policy and environmental compliance initiatives and activities. His career experience includes facility permitting, agency interaction, permit negotiations, environmental advocacy group participation, and testifying and sponsoring exhibits for various regulatory or legislative proceedings relative to environmental issues for electric generation and power supply projects. Mr. Konary holds a Bachelor of Science degree from the University of Massachusetts at Amherst and a Masters in Business Administration degree from Boston University.



#### Vice President Operations, East – Mark Gouveia

Mark Gouveia serves as Vice President for East NRG Operations overseeing day to day operation for the region's fossil fired plants. Mr. Gouveia joined NRG as a result of the merger with GenOn in December of 2012. Prior to his current position at NRG, he held various staff and line leadership roles with Pacific Gas and Electric Company, Mirant and GenOn. Job responsibilities included plant management, construction and technical services. Well versed in a number of power plant technologies including coal/gas/oil fossil fired generation, wind and geothermal.



## FACILITIES AND EQUIPMENT

#### **PROJECT SITE**

Bowline Generating Station is located on the west bank of the Hudson River in West Haverstraw, New York approximately 35 miles north of New York City. The plant consists of two natural gas and oil fired boiler, turbine generators along with a two-story administration building, warehouse, switchyard, natural gas blending-reducing-metering station, maintenance building, waste water treatment plant, enclosed intake structure and fuel oil tank farm. Bowline has adequate land available for future development.



Figure 2 - Regional Location View

The plant's primary fuel source is natural gas provided via two gas pipelines. The first is a 16-inch pipeline from Orange & Rockland Utilities ("O & R") that supplies approximately 6500 million cubic feet ("MCF"). Hudson Valley Gas provides approximately 12,000 MCF through a 24-inch pipeline, with pressure reducing and metering for this supply located on site. Gas blending and pressure reducing capabilities for both supplies are also located on site. No. 6 fuel oil is a secondary fuel stored on-site in six fuel oil storage tanks at 145,000 barrels each. Fuel oil is bargedelivered through an offshore unloading pier.

The facility is connected to the power grid by two 345 kV transmission lines connecting to the West Haverstraw and Ladentown substations.



## Power Generating Equipment

	Bowline Unit 1	Bowline Unit 2
Vintage	1972	1974
Units	1	1
<b>Original Net MW</b>	572	567
Fuel	Nat Gas/#6 Oil	Nat Gas/#6 Oil
Black Start	No	No
Interconnection	Haverstraw/ Ladentown 345 kV	Ladentown 345 kV

Table 1 - Existing Bowline Units





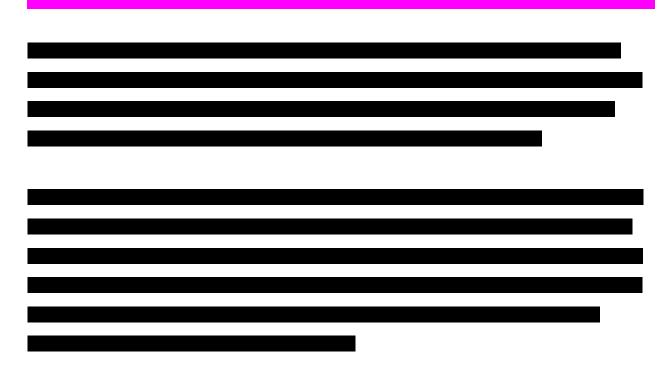
**OPERATING CHARACTERISTICS** 



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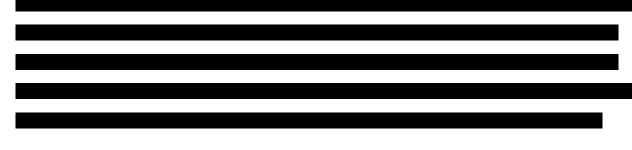


### CONSTRUCTION AND PERMANENT FINANCING



### EVIDENCE OF SPONSOR CREDITWORTHINESS

NRG is the largest competitive power generation company in the US, with net generating capacity of over 47,000 MW, representing a diversified mix of fuel source (including over 800 MW of renewable sources), generation technology, output configuration, and geographical location. The company has an additional 1,678 MW under construction. Beyond its wholesale generation business, NRG is a participant in the retail business in Texas and the Northeast, with more than 59 TWh sold in 2012. This portfolio of assets and businesses generates significant cash flow, as indicated in NRG's financial statements and guidance.





### EVIDENCE OF SPONSOR FINANCING EXPERIENCE

NRG has the financial resources and access to the lending community to implement the financing plan and construct the Project on budget and on schedule. As of May 2013, NRG has successfully financed net 3,666 MW of development projects on a non-recourse basis, resulting in \$6.9 billion of project debt financing, with competitive terms.

NRG has successfully raised financing for several utility-scale construction projects in the last several years, as demonstrated in Table 2 below:

Closed Transactions					
	Size				
Project	Generation	Financing	Net MW	\$Debt	Financial
		type			Close
Thermal	Thermal	Private	121	259	1993, 2002,
		Placement			2010
Peakers	Nat Gas	Banks	1,140	325	6/2002
Sherbino	Wind	Banks	75	280	12/2008
GenConn	Nat Gas	Banks	188	291	4/2009
			(50% of 376)		
Blythe	Solar	Banks	21	36	6/2010
South Trent	Wind	Banks	100	79	6/2010
Avenal	Solar	Banks	25	186	9/2010
Marsh Landing	Nat Gas	Banks	720	500	10/2010
Ivanpah	Solar	DOE Debt	190	1,600	4/2011
Roadrunner	Solar	Banks	20	68	5/2011
El Segundo	Nat Gas	Banks	550	688	8/2011
Agua Caliente	Solar	DOE Debt	148	967	8/2011
CVSR	Solar	DOE Debt	250	1,237	9/2011
Alpine	Solar	Banks	66	230	3/2012
Avra Valley	Solar	Banks	25	73	8/2012
Borrego	Solar	Hybrid	27	80	3/2013
Total			3,666	6,899	

Table 2 - NRG Transactions



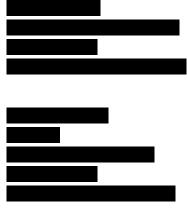
All projects are in compliance in all material aspects under their respective financing. Prior to its acquisition by NRG, the South Trent Project had defaulted on payment of its debt. Upon acquisition, the default was cured and that project has met all material compliance obligations

Given NRG's corporate strength and strategic interest in the success of the Project, as well as our proven ability to raise meaningful amounts of capital, NRG has the capability to ensure the successful financing of the Project through the development, construction and operating life of the Project.

### **PROJECT FINANCING REFERENCES**

Below are more detailed descriptions of relevant projects and financing structures as requested by the RFP, as well as bank references.





### GENCONN

*Overview.* GenConn is a 50/50 joint venture between NRG and United Illuminating Company, which owns two dual fuel-fired simple-cycle generating facilities, located in Devon and Middletown, Connecticut. Each facility, GenConn Devon and GenConn Middletown, is rated at a capacity of 190 MW. Both facilities are located on sites leased by NRG affiliates under 30-year lease arrangements. GenConn Devon and GenConn Middletown achieved commercial operations in June 2010 and June 2011, respectively. GenConn Devon and GenConn



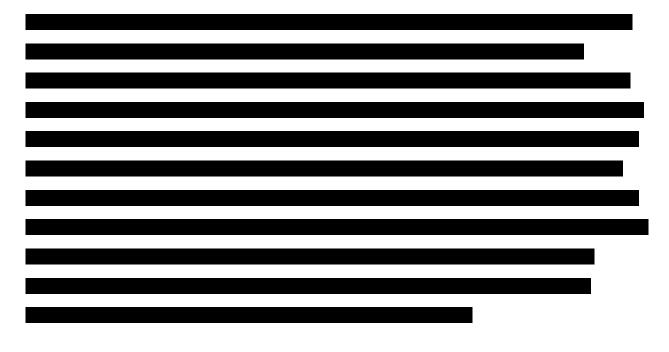
Middletown are each party to a 30-year Contract for Differences with Connecticut Light & Power.

*Project-Level Financing.* The construction of both facilities was partly financed with debt by a syndicated group of financial institutions under a non-recourse \$243 million construction loan and \$48 million working capital facility that closed in April 2009. The equity was partially funded by an equity bridge loan that was repaid in full at commercial operation date ("COD"). The term loan accrues interest at a rate based on LIBOR plus a spread and matures in April 2016. The working capital facility matures in April 2014 and provides liquidity for GenConn's ongoing operational needs in the form of borrowings or letters of credit. GenConn entered into LIBOR-to-fixed interest rate swaps with multiple counterparties to hedge the interest rate risk. These swaps require quarterly payments over the tenor of the term loan. The credit facility includes customary affirmative and negative covenants and events of default. GenConn anticipate refinancing the term loan and working capital facility prior to their maturity.

#### EL SEGUNDO

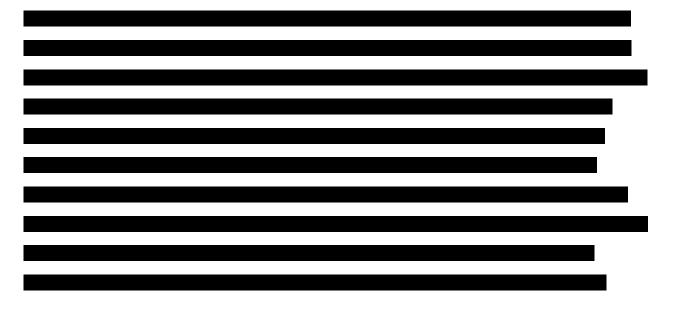
*Overview.* El Segundo is a 550 net MW natural gas-fired combined-cycle turbine with fast-start capabilities located in Los Angeles County, California, situated on a brownfield site leased by and subject to an easement with NRG and adjacent to an existing natural gas-fired facility owned by NRG. We own a 100% membership interest in the facility, which is expected to achieve commercial operations in August 2013. We expect El Segundo will achieve substantial completion in June 2013, at which time it will have successfully met performance and emissions test criteria and be able to generate electricity. As of March 31, 2013, the construction of El Segundo had not deviated from the budgeted project costs, which include contingency costs, in any material respect. El Segundo is party to a 10-year tolling agreement with Southern California Edison.





### MARSH LANDING

*Overview*. Marsh Landing is a 760 net MW natural gas-fired simple-cycle gas turbine located in Contra Costa County, California, situated on a brownfield site adjacent to the existing natural gas-fired Contra Costa facility owned by NRG. Contra Costa Units 1 to 5 inclusive have been retired and Units 6 and 7 remain in operation. We own a 100% membership interest in the plant, which achieved commercial operations in May 2013, on schedule and within budget.

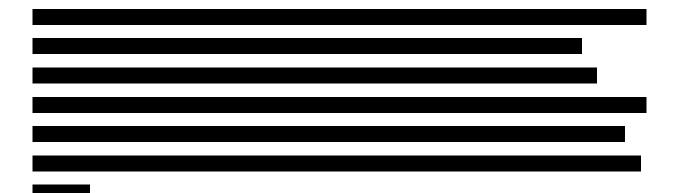




facility to a permanent facility upon commercial operation of the Marsh Landing project and December 31, 2023. Interest on the tranche A term loan is based on a base rate or a LIBOR rate plus a spread. Interest on the tranche B term loan is based on a base rate or a LIBOR rate plus a spread. The credit facility includes customary affirmative and negative covenants and events of default.

### TAX EXEMPT FINANCING

*Overview*: During 2010-2012 NRG Energy has issued over \$475 million in Tax Exempt Bonds for various Capex, including environmental and maintenance upgrades at W.A. Parish, which consists of nine units, four of which are baseload coal-fired units and five of which are natural gas-fired units. NRG has been able to issue the cheapest long term debt in company history utilizing this program.





## ELECTRICAL INTERCONNECTION

Bowline Units 1 and 2 are independently interconnected into the Consolidated Edison/O & R 345 kV transmission system. Each of the two circuits runs underground approximately 1.9 miles to the West Haverstraw Substation, at which point the circuits transition aboveground and continue overhead on a single set of 345 kV transmission towers to the 345 kV Ladentown Substation, where they terminate in separate bays. There is a voltage tap on the Unit 1 interconnection at the West Haverstraw Substation which connects to a 400 MVA 345 kV to a 138 kV autotransformer. The line interconnecting Unit 2 to Ladentown bypasses the West Haverstraw Substation. GenOn Bowline, LLC owns the underground portions of each circuit, up to the potheads at the West Haverstraw Substation. The circuits from the West Haverstraw Substation to the Ladentown Substation are jointly owned by Consolidated Edison and Orange & Rockland Utilities. THIS PAGE INTENTIONALLY LEFT BLANK



FUEL SUPPLY		

On the unexpected occasion when natural gas supply may be unavailable, ULSD for the dualfuel unit is stored on site in a dedicated 145,000 barrel storage tank that is supplied by barge.

COMPONENTS OF FUEL COST



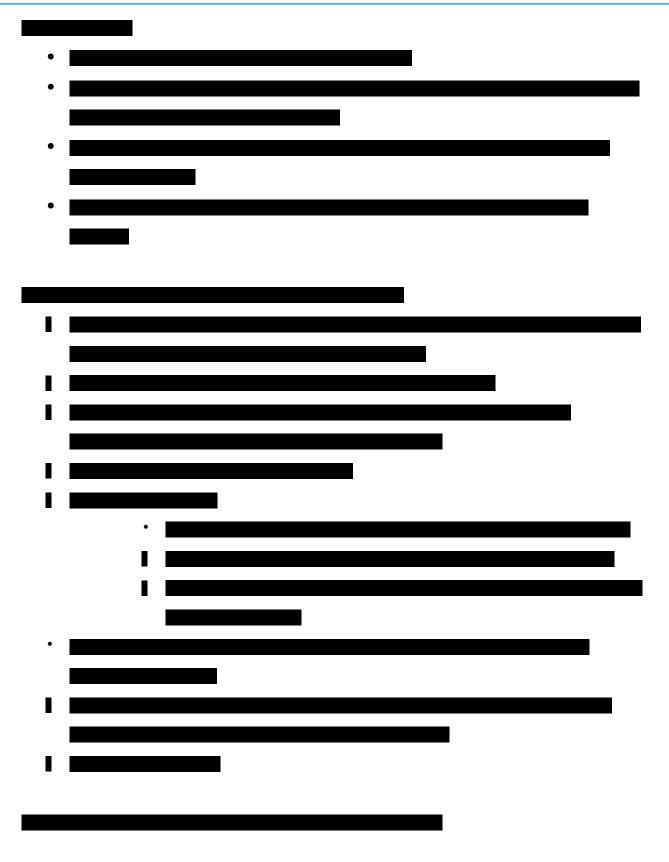
Commodity Gas - "Gas Daily Price" means the price per MMbtu published in Platts' Gas Daily<sup>®</sup> (as published by The McGraw-Hill Companies) under the heading Daily Price Survey for "Citygates" for "Algonquin, city-gates." under the column "Midpoint".

Taxes – All taxes assessed to the aforementioned demand, commodity and variable Components of Fuel Cost. Taxes may include but are not limited to Gross Receipt and sales taxes.



CONSTRUCTION PLAN AND SCHEDUL	E
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SUBCONTRACTORS	
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No contractors have been selected to date by NRG for the Project. When awarding this work, NRG will only consider large fully-qualified union contractors that have successfully completed multiple projects of similar scope and magnitude in the greater New York City area utilizing the local trades. These subcontracting opportunities are likely to provide the best opportunity to involve Minority and Women-Owned Business Enterprises ("M/WBE") in the Project. NRG agrees with the M/WBE goals set out in Section 14.3 of the RFP.

A project-specific M/WBE program will be established for the Project. This program will include project specific goals for M/WBE participation and will outline planned activities to achieve the targeted goals. This may include the hiring of an M/WBE local coordinator, with the goal of using a professional with established ties to the community, the participation in business to business events, coaching and mentoring programs for contractor's staff, and advertising of opportunities.

NRG is committed to diversity and equal opportunity in the workplace. NRG's Equal Employment Opportunity Commitment Policy is in Appendix 7 and NRG's most recent (September 2012) confidential Equal Employment Opportunity ("EEO") report summary is also



included in Appendix 7. NRG submits this data annually to the Equal Employment Opportunity Commission, an agency that collects data about gender and race/ethnicity by types of job groupings. NRG will provide this information in 2013 when the EEO report is updated.



## **OPERATIONS AND MAINTENANCE**

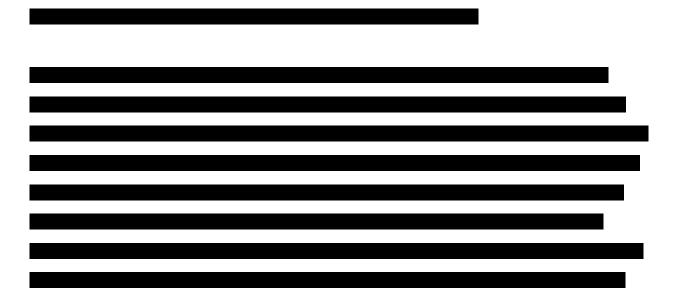
NRG has a proven track record in power plant operations. NRG is an operations lead organization focused on three key priorities which are listed in order of importance below:

- a fundamental focus on safety;
- minimizing environmental impacts; and
- optimizing fleet-wide maintenance to retain the long-term viability of its facilities and to minimize forced outages.

NRG is proud of its safety performance and has an unrelenting focus on this aspect of our business. Our program is supported by a demonstrated management commitment and an expectation of full employee participation.

NRG has

achieved a high level of operational performance through its intensive focus on operations and maintenance fundamentals lead by regionally-coordinated operations teams. The NRG Operations Organization uses multiple tools to continuously improve its safe, plant operations.





scale through its ability to immediately identify and leverage lessons learned and other information across its fleet.

Through its experience gained through operating its extensive fleet, NRG has the right experience to operate all sizes of power production facilities. NRG clearly recognizes the need for emphasis on proper plant operations and maintenance ("O&M"), including the O&M as it pertains to the steam generators. To that end, NRG has put the SCR technology provider in a key role in operations training and management both during the development and construction phases, as well as post-completion. NRG views managing the SCR and boiler operations as critically important to the success of the Project and will incorporate close coordination of the technology provider and a best practices approach to overall O&M at the Project.

#### STAFFING

The positions include plant

supervision, mechanical, electrical, instrumentation, operating technicians and support staff. To the greatest possible extent, new positions will be sourced from the local community. Below is an organizational chart of the Project staffing (Figure 4).





### PRE-COMMERCIAL OPERATION DATE

NRG is committed to achieving world-class excellence for its generating fleet. A key step in realizing this goal is the implementation of an extensive training program for all levels of the operations personnel with the guidance from the technology providers. The training program will consist of the following:

Classroom Technology Training –A series of classes will be organized covering fundamentals of the technology and its operational requirements. Attention will be provided in the operational requirements for the technology and requirements for the technology and requirements.



avoidance of all potential environmental impact scenarios.

Comprehensive

reference literature and training documentation will be included for each staff member.

- Computerized Simulator Training This has proven to be a very effective part of the training program for operators at other NRG facilities and NRG will seek to capitalize on that success for the Project. Consisting of training on a computerized simulator, the actual control consoles for the units will be mimicked allowing for thorough training through simulation of a wide range of operational situations.
- Actual Plant Training –

This "hands on" training will be essential for selected positions within the operations organization and enables operators to share

best practices across operating shifts to achieve world-class operations results.

### POST-COMMERCIAL OPERATIONS DATE

NRG will continue to self-perform operations and maintenance in accordance with original equipment manufacturer ("OEM") recommendations and industry standards. Downtime due to "lost time work injury" is disturbing and regrettable on a human level: NRG's paramount aim is for our employees to go home injury free every night. As a result, safety training and awareness are of the utmost importance at NRG. Operational procedures ensure the safe startup, commissioning and operation of the Bowline facility.





A detailed maintenance plan will be developed

- Equipment maintenance intervals This will determine the type, quantity and numbers of spare parts required to be stored and consumed at the plant.
- Spare Parts Inventory Normal stocking levels of spare parts to be warehoused at the facility will be determined. Economic Order Quantities and Re-Order Points for each critical spare part will be determined.
- Staffing requirements (company and contract personnel) A maintenance philosophy will be determined during the early development phase to include any additional facilities or equipment required for implementing a successful preventive maintenance program.
- Control Systems and Data Capture –

The

collection of these data sets from the beginning of operation can facilitate critical trending analysis which can identify potential maintenance and environmental issues before they occur, optimize the frequency of maintenance intervals and number of spare parts kept at the facility, and reduce environmental impact occurrences.

NRG has identified a goal of achieving world-class operating standards and availability in all its generating stations. Developing and implementing a first-class training program, preventative



maintenance plan, and uncompromising safety and environmental standards are all crucial components of our goal of ensuring top decile performance from our generating fleet.

### PLANNED MAINTENANCE

A facility's maintenance intervals are based on a combination of factors that include fuel type, number of operating hours, number of starts, types of starts, whether operation or starts were performed using a single or dual fuel and the number of trips from load. These factors are used to calculate equivalent hours which determine the type and interval of the level of inspection. NRG works closely with the OEM and industry experts when completing inspections, outages and equipment upgrades.



# ENVIRONMENTAL BENEFITS AND PERMITTING

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## COMMUNITY BENEFITS

The greater Haverstraw and Rockland County community supports the development of energy projects at the Bowline facility.

GenOn Bowline, LLC became an indirect subsidiary of NRG as a result of NRG's December 2012 acquisition of GenOn. Since that time, we have reached out to the greater Haverstraw/Rockland County, New York, community regarding the potential development opportunities at the site. This community, including the groups listed below, has supported development proposals by NRG's predecessors for the better part of the last 12 years. The community has had a professional working relationship with the owners of the Bowline facility and they support the continued operation of an energy generating facility at the site. Additionally, the community is passionate about this site being the marquis location for a generating facility due to its location in the lower Hudson Valley, proximity to the New York City load pocket, and all of the existing infrastructure – brownfield site, electrical infrastructure, natural gas infrastructure, access to water sources. Finally, the community wants to see this source of property tax revenues, jobs and local economic benefits remain.

We have reached out to the following, who have

expressed their support for development at Bowline:

- Senator William Larkin
- Assemblymember Kenneth Zebrowski
- Haverstraw Supervisor Howard Phillips
- West Haverstraw Mayor John Ramundo
- The Rockland Business Association
- Laborers Local 754
- Construction Industry Council and Building Contractors Association
- IBEW Local 363



Letters of support from several of these organizations are attached in Appendix 6.