

New York Energy Highway Taskforce

RFI Submission

of

NYC ENERGY LLC

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Submitted By:

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**NYC ENERGY LLC
Response To
New York Energy Highway Taskforce
Request for Information**

Table of Contents

1. INTRODUCTION.....	1
2. RESPONDENT INFORMATION.	3
3. PROJECT DESCRIPTION.....	4
4. PROJECT JUSTIFICATION.....	6
5. FINANCIAL.....	7
6. PERMIT APPROVAL/PROCESS	8

Exhibits:

Exhibit A - NYC ENERGY Floating Power Plant Site Plan

ENERGY HIGHWAY TASK FORCE RFI SUBMISSION OF NYC ENERGY LLC

SEF INDUSTRIES INC., on behalf of NYC ENERGY LLC (NYC ENERGY), hereby submits this Response to the Energy Highway Task Force Request For Information (“RFI”). This Response conforms to the directions appearing on pages 15-17 of the RFI, and summarizes the ways in which NYC ENERGY’s proposal addresses the Energy Highway objectives.

1.0 INTRODUCTION

NYC ENERGY is pleased to offer the NISA Floating Power Plant (FPP) for inclusion in the Energy Highway initiative. The FPP meets many of the goals of Governor Cuomo’s innovative Energy Highway initiative, and has the value added component of significantly enhancing existing capabilities for responding to a catastrophic loss of power in New York City. The FPP has the unique ability to rapidly move under its own propulsion via waterway to locations where critical electricity users such as hospitals and other vital infrastructure are clustered and to supply their full power requirements during periods when they have been impacted by an outage. This significant emergency response capability is not available under existing disaster response plans. Accordingly, in addition to achieving Energy Highway program goals, the FPP will meaningfully enhance New York City’s ability to address the consequences of a sustained loss of power.

As more fully described in this submission, the proposed project will:

- Expand the diversity of power generation sources supplying the downstate area by providing an additional 79 MW of power produced in New York City;
- Assure that long-term reliability of the electric system is maintained in the face of major system uncertainties by providing a unique means of indefinitely meeting the full power requirements of designated hospitals or other critical infrastructure should a natural disaster, terrorist attack, mechanical failure, or human error result in a catastrophic power loss within New York City;
- Increase the efficiency of power generation in a densely populated area by utilizing state of the art, clean and efficient equipment to generate power in New York City;
- Create jobs and opportunities for New Yorkers in both the construction and operation of the power plant.

Unlike many other project proposals, the FPP has already received all necessary permits and the site has been leased. The engineering and design work has been privately financed and completed by the developer. It is estimated that the project can be up and running within 18 months of closing on construction financing.

While the construction will be privately financed, NYC Energy is seeking public participation in the form of an emergency preparedness services agreement. The proposed project creatively leverages that public participation in a rare example of a public-private partnership that has multiple benefits. With the support of the State, NYC ENERGY can provide two important services to the public -- it will meet the energy infrastructure and generation goals of the Energy Highway initiative, and will very significantly enhance New York City's ability to respond to and mitigate the consequences of a sustained loss of power.

Although this is a comparatively small project, it is disproportionately important from a system reliability and emergency response perspective. The Energy Highway

initiative recognizes that New York depends in many ways upon a reliable and efficient power system. Indeed, one of the most noteworthy aspects of the Energy Highway initiative is that it acknowledges the pressing need to address the vulnerabilities of the power system in order to ensure future growth and prosperity. Those vulnerabilities exist in many forms – from the failure of aging infrastructure, to natural disasters, to acts of terrorism, including cyber-terrorism. In today’s world the possibility of a cyber-attack on the power grid is as real a threat to the system as aging transmission lines and outdated generation equipment. Regardless of the cause, however, being prepared to address the deadly consequences of a sustained loss of power in New York City is critically important.

NYC ENERGY’s FPP provides an unusual opportunity to leverage state support to achieve both Energy Highway and emergency response goals in a creative and practical way, on a quick timeline. We are looking forward to pursuing this project with New York State.

2.0 RESPONDENT INFORMATION

SEF INDUSTRIES INC on behalf of
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NYC ENERGY is a Delaware limited liability company formed to develop, own and operate the NISA Floating Power Plant Project. NYC ENERGY is an affiliate of SEF INDUSTRIES INC. (SEF), a New York corporation formed in 1997 to develop

energy projects. SEF and its executives, Jerry Montrose and Jim Hall, have been involved in the electric energy industry for over 30 years. They have particular experience developing wind electric generating facilities and mid-sized, customer-sited, gas-fired thermal/electric cogeneration facilities.

3.0 PROJECT DESCRIPTION

The NISA Floating Power Plant (FPP) is a 79 MW electric generating facility employing modern, but conventional, gas-fired, combined cycle technology. The new state of the art natural gas fueled power plant will improve New York City's air quality by displacing electricity production from older, dirtier and less efficient generating capacity. During everyday operations, the FPP will run on clean natural gas and sell capacity, energy and ancillary services into Zone J of the New York Transmission System pursuant to New York Independent System Operator (NYISO) tariff requirements. The FPP is designed and permitted to operate on either natural gas or low sulfur oil. Natural gas will be transported to the FPP via the New York Facilities gas pipeline operated by KeySpan Corporation.

The FPP's primary feature is its portability from its home, which will be in the Wallabout Channel adjacent to the Brooklyn Navy Yard in Brooklyn, to selected critical loads which will be provided with pre-installed electrical conduits and feeders to receive electric power directly from the FPP during emergencies that have impaired the Consolidated Edison Company of New York, Inc. (Con Edison) transmission or distribution system.

In addition to supplying a clean new source of power located in-City, by incorporating additional features into its present design, in the event of a catastrophic loss of power in New York City's electric grid resulting from natural disaster, terrorist attack, or mechanical failure, the FPP, under the direction of State or City emergency response officials, the FPP can be moved via waterway under its own propulsion from its base at the Brooklyn Navy Yard to one of the critical load locations and provide 100% of the location's normal electrical power requirements in less than three hours for as long as it takes Con Edison to restore full normal power from the grid. Except for those real property interests that may be required for the electric interconnection, all property interests needed for construction of the FPP have been acquired.

The FPP's hull can be designed to hold a 3 day fuel oil supply and can be refueled by oil delivery barges, enabling the FPP to run continuously. A very significant benefit of the FPP is its ability to service areas where street access is unavailable in a disaster zone. Land-based trailer-mounted generators are unreliable in disaster situations since they depend upon clear streets and regular refueling by truck delivery every 6-8 hours. Because the FPP is located on the water, the condition of the streets will not interfere with its operation, nor will emergency managers have to address the problems of closed streets, physical barriers, or other obstacles that have historically made it difficult to deploy and refuel portable generators. Moreover, it would take between 160 and 320 trailer-mounted diesel generators to provide as much power as the single FPP.

NYC ENERGY has identified four critical load locations that can be equipped to receive power directly from the FPP during an emergency as shown on the attached site plan, **Exhibit A:**

1. NYU Medical Center (Manhattan)
2. Veterans Administration Hospital (Manhattan)
3. Bellevue Hospital Center (Manhattan)
4. Financial Center (Lower Manhattan)

The three hospitals listed above have been identified by *The Centers for Bioterrorism Preparedness Planning* as “core” hospitals, which emergency responders will rely upon in the event of a catastrophic failure of the City’s electric grid.

The FPP’s quick response, “plug-in,” capability requires that these critical locations be equipped with new pre-installed electrical interconnection facilities (Pre-installed Facilities) to permit the rapid connection of the FPP. The Pre-installed Facilities will be constructed independent of the Con Edison network and will include new feeders directly connected to each load’s existing electrical service. Unlike the existing customer-owned emergency generators, which only provide limited backup power, the FPP would supply 100% of the normal electrical power requirements for the critical load for as long as it takes Con Edison to restore full, normal power from the grid.

4.0 PROJECT JUSTIFICATION

The FPP will be interconnected to Con Edison’s 138 kV system during normal operation to provide a new source of electric power located in the heart of the New York City load pocket. Electric interconnection arrangements are under review; there are

several potential designs for interconnecting to Con Edison's 138kV system in the vicinity of the FPP's home base.

The FPP has the additional advantage of providing New York City with a unique emergency response capability for responding to natural or terrorist-caused disruption to the power grid, by maintaining power delivery to critical loads within the City.

Given its location and its normal, non-emergency role as a source of electricity, the FPP will: (i) reduce constraints on the flow of energy into the City; (ii) diversify the City's power supply; (iii) enhance the reliability of the downstate power system; and (iv) increase the City's power generation efficiency. In addition, as an emergency response tool, the FPP has the unprecedented ability to deliver enough power, on an indefinite basis, to hospitals and critical infrastructure so that they may continue full operations during the course of a sustained power outage.

The FPP will create 1200 temporary jobs, primarily in skilled construction trades, and 20 new permanent jobs. Construction can take place in any New York shipyard, with final pipefitting and other on-site work performed at its Brooklyn Navy Yard site. Assuming cooperation from involved parties in finalizing interconnection arrangements, the FPP could begin operations in 18 months from close on construction financing.

The FPP will bid into the NYISO markets following NYISO market rules.

5.0 FINANCIAL

The FPP will earn revenues in the power markets administered by the NYISO, but will also require revenues related to its emergency response function. The FPP will

supply a unique service for the City's power grid and will enhance the City's capability for maintaining reliable power supply to critical loads. This service is, by its nature, a public service.

The development of the FPP has been fully funded with private funds. Construction and operation can also be fully-funded privately. Public participation is required in the form of a emergency preparedness services agreement negotiated between SEF and a public purchasing entity or entities (which could be one or a combination of Con Edison, New York Power Authority, the City of New York or the State of New York) pursuant to which NYC ENERGY (i) will maintain the FPP's readiness to respond to emergency conditions at the direction of City and /or State and (ii) will relocate and operate the FPP to serve critical loads during any such emergency.

6.0 PERMIT / APPROVAL PROCESS

The FPP has received all required City, State and Federal permits and has long-term property rights within the Brooklyn Navy Yard and in underwater lands owned by the State.