CONNECTICUT SITING COUNCIL
PETITION NO. 831

IN THE MATTER OF:

PETITION OF WATERBURY GENERATION LLC FOR A DECLARATORY RULING FOR THE CONSTRUCTION OF AN ELECTRIC GENERATING FACILITY AND ASSOCIATED TRANSMISSION LINE TAP IN WATERBURY CONNECTICUT

PETITIONER'S POST-HEARING BRIEF

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PETITIONER'S POST-HEARING BRIEF

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EXECUTIVE SUMMARY

On October 5, 2007, Waterbury Generation LLC ("WatGen") filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") for the construction of an electric generating facility and associated transmission line tap in Waterbury, Connecticut ("Project"). As part of the Project, WatGen intends to construct an approximately 96 megawatt ("MW") simple cycle combustion turbine generating peaking facility at 725 Bank Street in Waterbury, Connecticut and associated 1.8 mile, 115 kilovolt ("kV") transmission line tap to interconnect with The Connecticut Light and Power Company's ("CL&P") transmission system at CL&P's Baldwin Street Substation. Upon completion of construction, WatGen will own, operate and maintain the generating facility and, upon completion of the transmission line tap, ownership of the line and all easements necessary to construct, operate and maintain the line will be transferred to CL&P.

THE PROJECT

The generation facility will be located on an approximate 9.3 acre parcel owned by Ansonia Copper & Brass, Inc. ("ACB") at 725 Bank Street in Waterbury (the "Property"), a 2.25 acre portion of which will be leased by WatGen ("Site"). The generating facility will have dual fuel capability of natural gas and ultra-low sulfur distillate oil, and the generating facility's net electric output will be exported to the grid. All improvements associated with the generating facility will be located in previously disturbed areas.

The Project is a peaking generation unit that is expected to operate approximately four to six weeks per year depending on weather conditions and load requirements. The primary fuel supply for the generating facility will be natural gas that will be delivered via a high pressure gas main

through an interconnection, likely with Yankee Gas. Ultra-low sulfur distillate oil ("ULSD") will be the secondary fuel source.

Subject to CL&P review and approval of all license agreements and/or easements and design and construction, the transmission line tap will run from the Site, in a southerly direction along the Metro-North right of way ("ROW") to the existing CL&P transmission line ROW, then easterly along properties in the area to the Baldwin Street Substation. The transmission facility will be approximately 1.8 miles in length and is, in reality, a high voltage generator lead necessary to connect the generating facility to the CL&P transmission system. The transmission line tap will comply with the Council's Best Management Practices and presents a cost-effective solution for the interconnection of the generating facility.

The generating facility will interconnect at the CL&P Baldwin Street Substation at 115 kV through the transmission line tap being constructed as part of the Project. To accommodate this interconnection, a switchyard encompassing approximately 3,000 square feet will be constructed at the Site to the south of the generating facility. At the Baldwin Street Substation, a new termination pole or structure, underground high voltage cable, circuit breaker and disconnect switch will be added to the existing substation to accept the new line position.

PUBLIC NEED & BENEFIT

Pursuant to Connecticut General Statutes § 16-243m, the Connecticut Department of Public Utility Control ("DPUC") initiated a request for proposal ("RFP") process soliciting new or incremental capacity resources to reduce federally mandated congestion charges ("FMCCs") and to improve the reliability of the electric system in Connecticut. In July 2005, the DPUC initiated Docket No. 05-07-14, *DPUC Investigation of Measures to Reduce Federally Mandated Congestion Charges (Long Term Measures)* to implement the RFP process. The Project was

submitted in response to the RFP and was ultimately selected by the DPUC.

The Project was selected as a result of the significant benefits it will provide, including reduced electricity costs, corporate tax income, sales and use tax income, property tax income and increased economic development. The Project is expected to save Connecticut ratepayers more than $50 million during the first ten years of operation and up to $200 million over its total life. Additionally, the Project is projected to pay more than $115 million in property taxes in Waterbury and more than $40 million in corporate state taxes during its life. Over $3 million in sales and use tax will be remitted by the Project during the construction period. Overall, the aggregate savings to ratepayers combined with the revenue to the City and State is projected to be more than $350 million over the life of the Project. In addition to the significant economic benefits that the Project provides, it was included in the selected portfolio because it will improve reliability and provide needed fast start generation capacity.

NO SUBSTANTIAL ENVIRONMENTAL EFFECTS

The Project will not have any substantial adverse environmental effect. In fact, in conjunction with the construction process, the Site will be remediated in accordance with the Connecticut Department of Environmental Protection's ("DEP") Remediation Standard Regulations ("RSRs") under the direction of a Licensed Environmental Professional ("LEP"). Moreover, the Project will be required to meet other State and Federal standards designed for the protection of human health and the environment.

Public Health and Safety

The unrefuted evidence presented during the course of this proceeding has established that the Project will have little, if any, impact on public health and safety, including electric magnetic fields ("EMF"). The proposed transmission line tap will only affect ambient levels of EMF, with

the greatest effect in the immediate area of the transmission line tap. Using conservative assumptions, edge of ROW magnetic flux density is projected to be 42.9 mG on the side with the conductors and 29.6 mG on the opposite side, and ROW EMF is projected to be 0.6 kilovolt per meter ("kV/m") on the side of the ROW where the conductors are located and 0.2 kV/m on the opposite side of the ROW. These levels are well below the ICNIRP recommended exposure level of 833 mG for the general public and 4,167 mG for occupational exposure. Indeed, the worst case exposure from the transmission line tap will be approximately five percent (5%) of this lower limit directly under the conductors at their lowest level and even lower as one moves further away from the structures.

The Project will also be equipped with appropriate fire suppression and safety features. The 15,000 gallon aqueous ammonia tank used for the SCR system associated with the generating facility will be fitted with level alarms, area monitors, a secondary dike enclosure and a vapor suppression system within the dike area. All connecting piping will be of double wall construction.

The SCR system will utilize a nineteen percent (19%) solution of aqueous ammonia, which is a solution of water and ammonia that is commonly used in industrial applications, is non-flammable and is not explosive when stored at ambient temperature and pressure conditions, as is the case for the WatGen facility. There will be a concrete dike around the tank that will contain the entire contents of the tank plus an additional margin of ten percent (10%). In the event of a spill or leak, the open surface in the dike area will be covered with small hollow plastic balls that will float on the surface of the liquid and limit the amount of evaporation by up to ninety percent (90%). No special training or equipment would be needed by emergency response personnel to respond to on-Site emergencies. Nevertheless, once construction is complete, WatGen will conduct familiarization tours of the Site with the Fire Department and establish emergency response

protocols with the Department to be able to aggressively manage any emergency that may occur on Site. Moreover, if it is later determined that special training or equipment is required, WatGen will pay for the costs of such training or equipment.

Scenic Values

Assuming a maximum stack height of two hundred thirteen feet (213'), the exhaust stack associated with the Project will be visible from some surrounding commercial and industrial areas that have open lots and few trees and along streets with direct sight lines. Based on preliminary modeling, the proposed stack height of two hundred thirteen feet (213') is the maximum required to comply with the new "CTDEP Interim PM2.5 New Source Review Modeling Policy and Procedures." However, WatGen is currently working with the DEP to determine if the height of the stack can be reduced. It is WatGen's intention to construct the exhaust stack at the minimum height acceptable to DEP that is protective of human health and the environment. Based on preliminary modeling, WatGen anticipates that the height of the exhaust stack can be significantly reduced, which will reduce the visibility of the Project.

Air Quality

WatGen submitted an Air Permit Application for New Source Review ("Air Permit Application") to the DEP, on September 4, 2007, for approval to construct and operate the generating facility. The Project will incorporate Best Available Control Technology ("BACT") to minimize air emissions and will comply fully with all applicable State of Connecticut and U.S. Environmental Protection Agency ("EPA") emissions standards for new sources in this category. In addition, the EPA has established National Ambient Air Quality Standards ("NAAQS") that are designed to protect the public health and welfare with an adequate margin of safety for the most sensitive individuals (e.g., children, elderly, asthmatics). As a condition of its air permit, WatGen

will be required to comply with these NAAQS. As a consequence, no adverse health effects will result due to emissions from the generating facility. Accordingly, any concerns regarding the Project's emissions are unfounded. Moreover, as a condition of its air permit, WatGen will be required to monitor and report emissions data to the DEP.

Water Quality

The unrefuted evidence presented during the course of this proceeding has established that the Project will have little, if any, impact on water quality. There are no wetlands on the Site or along the proposed Transmission Route. Some of the proposed facilities, including the ULSD aboveground storage tank are proposed within the 100-foot buffer of the Naugatuck River floodplain. However, best management practices such as soil erosion controls, secondary containment measures and the implementation of a Spill Prevention, Control and Countermeasure Plan will be employed to ensure protection of the Naugatuck River.

Water supply for the generating facility will be provided by the City. This source of supply will provide water to a portable demineralizer system, which will provide water for evaporative cooling of the inlet air, the nitrogen oxide ("NOx") control system and the mechanical draft cooling tower. The water quality required for the water injection NOx controls and the intercooler functions of the GE LMS 100 is very strict and, even with the use of potable water, will require further demineralization to ensure the purity of water to be introduced into the sensitive equipment. The City has adequate supply to meet WatGen's water demand needs, even on peak water demand days. Indeed, the City has capacity of up to 27 million gallons per day but is only projected to use up to 17.5 million gallons per day through the year 2050. Therefore, there is more than adequate supply for the Project, which will require a maximum of 442,000 gallons per day or approximately one percent (1%) of the City's total capacity, if the Project operates for one full day (i.e., 24 consecutive

hours). It is very unlikely that the plant will run for more than 6 to 8 hours per day during 4 to 6 weeks of the year. Therefore, the actual use of water will be substantially below this potential maximum.

Wastewater generated by on-Site processes will be minimal and will be discharged to the Waterbury sewer system without the need for pretreatment consistent with existing DEP General Permits. Applications for these permits will be submitted to DEP prior to discharge of any wastewaters.

The Site is in an area on the Property outside of the existing mill area, which is paved and already has a permitted storm water discharge to the Naugatuck River. The generating facility will utilize the existing storm water outfalls as part of the monitored drainage from the Site. Appropriate storm water permits will be obtained from the DEP for construction activities and operation of the generating facility. The construction of the transmission line tap will likely include the installation of augured foundations (either cast in place or pre-cast bases that will be field placed). This construction will not impact any drainage paths or create any new storm water flows.

Historic Values

Prior to submission of the Petition, WatGen contacted the Connecticut Historical Commission State Historic Preservation Office ("SHPO") about the Project. On September 18, 2007, the SHPO indicated that the Project will have no adverse effect. The SHPO noted, however, that ACB possesses historic and industrial importance and requested that certain mitigation measures be taken. WatGen has agreed to implement these mitigation measures.

Recreational Values

The Project is located within a heavily developed commercial and industrial area between Route 8 and South Main Street ("Industrial Corridor"). There are no recreational areas within the

Industrial Corridor. The Naugatuck River itself is a Class C river and at this time has limited to no recreational value. Moreover, except where the transmission line tap actually crosses the Naugatuck River, the Project is going to be located several hundred feet from the river with industrial buildings between the river and the components of the Project. The distance from the river and the intervening structures should block the visibility of the Project. Thus, the Project will not have any impact on recreational values in the area. In fact, in order to enhance recreational values in the area, WatGen has committed to fund the construction of a park in Waterbury to further enhance recreational values in the area.

Fish & Wildlife

Prior to submission of this Petition, WatGen contacted the United States Department of Fish and Wildlife Service ("USFWS") and the DEP about the Project. In response, DEP indicated that there are no known extant populations of Federal or State endangered, threatened or special concern species in the Project area. The USFWS indicated that no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the USFWS are known to occur in the Project area. This evidence was unrefuted.

CONCLUSION

The unrefuted evidence presented during the course of this proceeding has established that the Project will provide significant benefits to Connecticut ratepayers, the City of Waterbury and the State of Connecticut and that neither the construction nor operation of the Project will have a substantial adverse environmental effect. Therefore, the Council should issue a declaratory ruling approving the Petition as submitted.

I. INTRODUCTION

On October 5, 2007, Waterbury Generation LLC ("WatGen") filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") for the construction of an electric generating facility and associated transmission line tap in Waterbury, Connecticut ("Project"). As part of the Project, WatGen intends to construct an approximately 96 megawatt ("MW") simple cycle combustion turbine generating peaking facility at 725 Bank Street in Waterbury, Connecticut and associated 1.8 mile, 115 kilovolt ("kV") transmission line tap to interconnect with The Connecticut Light and Power Company's ("CL&P") transmission system at CL&P's Baldwin Street Substation. Upon completion of construction, WatGen will own, operate and maintain the generating facility and, upon completion of the transmission line tap, ownership of the line and all easements necessary to construct, operate and maintain the line will be transferred to CL&P. (WatGen Exhibit ("Exh.") 1).

II. PROCEDURAL BACKGROUND

The Council conducted an evidentiary and public hearing on the Petition on January 8, 2008. The evidentiary hearing continued on February 1, 2008. (01/08/08 Afternoon Transcript ("Tr.") at 3; 01/08/08 Evening Tr. at 3; 02/01/08 Tr. at 3).

Prior to the afternoon session of the January 8, 2008 hearing, the Council and its staff visited the Site of the generating facility and the location where the transmission line tap will cross the Naugatuck River into Baldwin Street Substation. (Council Field Review Notice). At the Council's request, WatGen caused a balloon to be flown at 213 feet during the Site visit. (Prehearing Conference Summary).

This post-hearing brief is filed on behalf of the Petitioner pursuant to Section 16-50j-31 of the Regulations of Connecticut State Agencies ("R.C.S.A.") and the Council's directive.

(02/01/08 Tr. at 149). This brief evaluates the Petition in light of the review criteria set forth in Section 16-50p of the Connecticut General Statutes.

III. FACTUAL BACKGROUND

A. Pre-Petition History

Pursuant to Connecticut General Statutes § 16-243m, the Connecticut Department of Public Utility Control ("DPUC") initiated a request for proposal ("RFP") process soliciting new or incremental capacity resources to reduce federally mandated congestion charges ("FMCCs") and to improve the reliability of the electric system in Connecticut. In July 2005, the DPUC initiated Docket No. 05-07-14, *DPUC Investigation of Measures to Reduce Federally Mandated Congestion Charges (Long Term Measures)* to implement the RFP process. The DPUC retained London Economics, Inc. ("LEI") to assist in all aspects of the RFP, including analysis of supply-demand conditions, development of the investment and needs analysis, design of the RFP and the associated contracts, coordination of the RFP process and analysis of the bid submissions. (WatGen Exh. 6 at 3).

The RFP was conducted in three phases. During the first phase, the DPUC received 80 project registrations from more than 45 bidders. During the second phase, the DPUC received 33 qualifications submissions from 20 bidders representing a combined total of more than 6,000 MW. During the final phase, the DPUC received more than 20 financial bids from 15 different bidders. 02/01/08 Tr. at 124. The submitted financial bids covered the full spectrum of resources – demand-side reduction, conservation and energy efficiency technologies, new gas-fired and oil-fired electricity generators and repowering of existing and retired or deactivated generation units. The bidders represented a wide array of participants in the electric energy sector, ranging from international independent power producers, local generation developers and

companies focused on demand-side activities. The Project was submitted in response to the RFP and was ultimately selected by the DPUC. (WatGen Exh. 6 at 3-4).

On May 3, 2007, LEI issued a report titled "Recommendations on Selection of Projects in the 2006 Connecticut RFP Process" (the "Report") in which it detailed its findings, analysis, conclusions and recommendations. In accordance with the statutory criteria, the LEI Report recommended a portfolio of four contracts, including the Project, for approval by the DPUC. In rendering the Report, LEI was guided by the statutory criteria by which the DPUC should judge project proposals and approve contracts. Specifically, pursuant to Connecticut General Statutes § 16-243m(g), the DPUC could approve a contract if it determined that the contract would:

- result in the lowest reasonable cost of such products and services;
- increase reliability; and
- minimize FMCCs to the state over the life of the contract.

LEI concluded that the selected portfolio would create net economic benefits for Connecticut ratepayers totaling $522 million on a weighted average basis during the first fifteen (15) years of operation because of the impact on wholesale costs of power, namely Locational Marginal Prices in the energy market, capacity clearing prices in the Forward Capacity Market and auction clearing prices in the Locational Forward Reserve Market. (WatGen 6 at 4-5).

The Project was included in the portfolio as a result of the significant benefits it will provide, including reduced electricity costs, corporate tax income, sales and use tax income, property tax income and increased economic development. The Project is expected to save Connecticut ratepayers more than $50 million during the first ten years of operation and up to $200 million over its total life. Additionally, the Project is projected to pay more than $115 million in property taxes in Waterbury and more than $40 million in corporate state taxes during

its life. Over $3 million in sales and use tax will be remitted by the Project during the construction period. Overall, the aggregate savings to ratepayers combined with the revenue to the City and State is projected to be more than $350 million over the life of the Project. (WatGen 6 at 10; 02/01/08 Tr. at 125-26).

In addition to the significant economic benefits that the Project provides, it was included in the selected portfolio because it will improve reliability and provide needed fast start generation capacity. In particular, the Project is capable of providing capacity and voltage support to the critical Southwest Connecticut area, which has been identified by ISO New England ("ISO NE") as severely constrained, and supplying local load. (WatGen Exh. 6 at 5).

On August 22, 2007, the DPUC concluded that the portfolio of projects recommended by LEI would improve reliability, result in the lowest reasonable cost for the products and services provided and reduce FMCCs. Thus, the DPUC adopted LEI's recommendations and authorized a capacity contract for the Project. (WatGen Exh. 6 at 5).

On October 2, 2007, following approval by the DPUC of a change in control, FirstLight Power Enterprises, Inc., through its wholly-owned subsidiary FirstLight Waterbury Holdings, LLC, acquired a ninety eight percent (98%) membership interest in WatGen from WatGen's original members. In order to obtain approval for the change in control, FirstLight was required to successfully demonstrate to the DPUC that it had the financial, technical and managerial qualifications to satisfy the terms of the Master Agreement for Generation Projects, dated May 21, 2007, between WatGen and The United Illuminating Company ("Master Agreement"). Prior to acquiring majority ownership of WatGen, FirstLight served as Project Manager beginning in June of 2007. (WatGen Exh. 6 at 5-6).

B. Local Contacts

In July 2007, WatGen commenced a community outreach campaign designed to keep State and local government officials, community leaders and Waterbury residents informed about its plan to construct the Project. As part of those efforts, WatGen met with various individuals and groups to discuss the Project, including Waterbury elected officials, Waterbury State legislators, Waterbury Department Heads, the Waterbury Development Corporation and local neighborhood organizations. Prior to submitting the Petition, WatGen also held a public information forum and community open house at the Marriott Courtyard in Waterbury on September 12, 2007, at which it presented information about the Project and answered questions from the public. (WatGen Exh. 6 at 8).

In addition, on November 18, 2007, WatGen met with a group organized by the Waterbury Neighborhood Council at Saint Anne's Church in Waterbury to discuss the Project. At that meeting, WatGen was asked if it would hold an additional public information session for those who were not able to attend either the September 12th Open House or the November 18th meeting. In response to this request, on December 19, 2007, WatGen attended a public information session at South Congregational Church in Waterbury at which members of various organizations and neighborhood groups, including the Naugatuck Valley Project, Waterbury Neighborhood Council, Town Plot Neighborhood Association, Hopeville Neighborhood Association, Gilmartin Community Club and Brooklyn Neighborhood Association were present. At that session, WatGen presented information about the Project and responded to questions from the community. (WatGen Exh. 6 at 8-9).

On November 28, 2007, Waterbury Mayor Michael Jarjura submitted a letter to the Council indicating the City of Waterbury's ("City") support for the Project. (Letter from Mayor

Jarjura; 01/08/08 Afternoon Tr. at 23.)

C. The Project

As part of the Project, WatGen intends to construct an approximately 96 MW simple cycle combustion turbine generating peaking facility at 725 Bank Street in Waterbury, Connecticut and associated 1.8 mile, 115 kV transmission line tap to interconnect with CL&P's transmission system at CL&P's Baldwin Street Substation. (WatGen Exh. 1 at 1).

1. Generating Facility

The generation facility will be located on an approximate 9.3 acre parcel owned by Ansonia Copper & Brass, Inc. ("ACB") at 725 Bank Street in Waterbury (the "Property"), a 2.25 acre portion of which will be leased by WatGen ("Site"). The Property is located in Waterbury's Industrial General ("IG") Zoning District. The Site is bordered by the Naugatuck River on the east, property leased by F.W. Webb on the west, the existing ACB Mill to the north and Washington Avenue to the south. (WatGen 1 at 6; 01/08/08 Afternoon Tr. at 26; 02/01/08 Tr. at 25-26).

The generating facility will be a simple-cycle combustion turbine peaking generation facility with a net summer electric output of approximately 96 MWs. The generating facility will have dual fuel capability of natural gas and ultra-low sulfur distillate oil, and the generating facility's net electric output will be exported to the grid. All improvements associated with the generating facility will be located in previously disturbed areas and will include the following major components:

- One General Electric LMS 100 Combustion Turbine Generator Package;
- An exhaust stack with a maximum height of 213 feet attached to the turbine generator enclosure and a Selective Catalytic Reduction ("SCR")/Carbon Monoxide ("CO") removal system;

- One 15,000 gallon aqueous (19%) ammonia tank used for the SCR system, which will be fitted with level alarms, area monitors, a secondary dike enclosure with 110% containment and a vapor suppression system within the dike area;
- One 364,000 gallon ultra-low sulfur distillate oil storage tank with 110% containment and cathodic protection and associated process piping and equipment;
- One 100,000 gallon demineralized water storage tank and associated process piping, water processing trailers and equipment;
- Small hold-and-haul tanks to manage process wastewater and oil-water separators for release of storm water discharges;
- An approximately 3,000 square foot switchyard containing a circuit breaker, disconnect switches and the generator step-up transformer, with 110% oil containment; and
- Station motor control enclosures which include motor starters, control equipment and other electrical equipment.

(WatGen Exh. 1 at 6-7, 15; WatGen 15, Response ("Resp.") 26).

WatGen has selected General Electric's ("GE") LMS 100 Combustion Turbine Generator Package for its high efficiency, state of the art safety features, low noise and reduced environmental impacts. The LMS 100 was specifically designed by GE for installation and operation in urban areas and is outfitted with sophisticated monitoring and control equipment. The LMS 100 reaches simple cycle thermal efficiencies of approximately forty-five percent (45%), which is a ten percent (10%) improvement over nearly every other turbine in its size range. In addition, the LMS 100 will be equipped with state of the art safety features to ensure fail safe operation and automatic shut down of the generating facility should any issues arise. (WatGen Exh. 7 at 7).

The Project is a peaking generation unit that is expected to operate approximately four to six weeks per year depending on weather conditions and load requirements. For the first ten (10) years of operation, pursuant to the terms of the Master Agreement, the facility is required to

operate as a peaking generation unit in order to satisfy its obligation to participate in the Locational Forward Reserve Market. Moreover, WatGen does not anticipate that the Project will be converted to a base load unit in the future. From a generation perspective, peaking generation is the least expensive way to serve incremental demand during peak periods (i.e., during summer and winter months). The characteristics of this generator (i.e., heat rate) would make it uneconomic to have this plant operate as a base load unit (i.e., 24 hours per day/7 days per week). (WatGen Exh. 6 at 7).

The primary fuel supply for the generating facility will be natural gas that will be delivered via a high pressure gas main through an interconnection, likely with Yankee Gas. It is anticipated that the natural gas line will run from the Yankee Gas Waterbury distribution facility along Railroad Hills Street to the WatGen facility, over a distance of approximately 4,700 feet. An electrically-driven compressor at the generating facility will boost the pressure to the required pressure level at the combustion turbine. (WatGen Exh. 1 at 8; WatGen Exh. 2, Resp. 7). WatGen is currently negotiating the terms of the natural gas interconnection agreement with Yankee Gas. (WatGen Exh. 2, Resp. 7). Once those negotiations are complete, WatGen anticipates that Yankee Gas will apply for any permits or approvals necessary for the installation of the natural gas line. (01/08/08 Afternoon Tr. at 43). Nevertheless, the DEP has concluded that the installation of the natural gas line in or along the currently contemplated route "should entail minimal impacts." (DEP Comments at 2).

The Master Agreement requires WatGen to provide for storage of alternative fuel other than natural gas at the Site. The criterion requires the capability to operate at the Summer Seasonal Claimed Capacity for 40 consecutive hours. (WatGen Exh. 2, Resp. 3). Ultra-low sulfur distillate oil ("ULSD") will be the secondary fuel source. The on-Site 364,000-gallon

ULSD storage tank will allow for approximately forty (40) hours of operation at one hundred percent (100%) generating capacity without the need for further fuel deliveries. The ULSD delivery will be by tanker truck and will occur within a loading/unloading area specifically designed to contain the entire contents of the truck. The tankers will primarily travel on interstate highways to Waterbury. The final one (1) mile will be via local roads in Waterbury. The initial fuel tank filling will require approximately 55 truck loads. During final construction and start-up, the tank filling process will be staggered to minimize traffic on local roads. Operation of the combustion turbine at one hundred percent (100%) load will require approximately 6,000 gallons per hour of ULSD.[1] (WatGen Exh. 1 at 8; WatGen Exh. 1, Tab 10). However, WatGen anticipates that ULSD will rarely be used as its cost has historically been and is expected to continue to be more than twice that of natural gas. (01/08/08 Evening Tr. at 24). During plant operation, arrangements for fuel delivery will be scheduled to ensure the generating facility is available during peak hours when it may be called upon to operate by ISO NE. (WatGen Exh. 1 at 8).

The design of the fuel unloading, storage and filtering system at the generating facility will follow GE Guidelines for fuel purity. Periodic fuel samples will be taken to ensure that the stored fuel meets applicable fuel standards. The tank will be equipped with condensate drains and a condensate removal system to ensure no build-up of water in the tank. Based on discussions with GE and Lill-DiFazio and WatGen's operational experience with similar highly refined light distillate oils for combustion turbine use, WatGen does not anticipate any degradation in ULSD quality nor does WatGen expect that operations or emissions when burning

[1] The text of the Petition mistakenly states that 8,000 gallons will be required. However, as noted in the Air Permit Application, operation of the combustion turbine at one hundred percent (100%) load will actually require only approximately 6,000 gallons per hour of ULSD.

this fuel will be affected in any way. (WatGen Exh. 15, Resp. 32).

2. Transmission Line Tap

Subject to CL&P review and approval of all license agreements and/or easements and design and construction, the transmission line tap will run from the Site, in a southerly direction along the Metro-North right of way ("ROW") to the existing CL&P transmission line ROW, then easterly along properties in the area to the Baldwin Street Substation. (WatGen Exh. 1 at 6; WatGen Exh. 2, Resp.10; WatGen. Exh. 2, Resp. 12). The Transmission Route is abutted by various commercial and industrial properties and is located in Waterbury's IG Zoning District, which permits utility substations and towers. (WatGen Exh. 1 at 6, 15-16). The transmission facility will be approximately 1.8 miles in length and is, in reality, a high voltage generator lead necessary to connect the generating facility to the CL&P transmission system. (WatGen Exh. 1 at 3). By providing for the interconnection of the Project into the regional grid, this transmission line tap will increase overall system reliability and decrease electric costs to Connecticut ratepayers. (WatGen Exh. 1, Tab 1).

The line will be designed and constructed to CL&P standards. Upon completion of the transmission line tap and confirmation by CL&P that the transmission line tap has been constructed in accordance with CL&P's standards, ownership of the transmission line and all easements necessary to construct, operate and maintain the line will be transferred to CL&P. (WatGen. Exh. 1 at 3).

The final design of the transmission line tap is not yet complete. WatGen expects, however, that the transmission line will leave the Metro-North ROW and cross Municipal Road to the east onto property owned by the City, on which is located the City's Waste Water Treatment Facility. (WatGen Exh. 2, Resp. 10). There are no existing towers or pole type

structures on the portion of the Metro-North ROW proposed for the transmission line route and there is one CL&P structure (a 165-foot tall steel lattice tower structure) in the existing CL&P ROW that runs east to the Baldwin Street Substation. (WatGen Exh. 2, Resp. 8; WatGen Exh. 2, Resp. 9). This structure supports two 115kV transmission lines and three distribution circuits that cross over Route 8 and tie into the Baldwin Street substation. (WatGen Exh. 2, Resp. 9).

The 115 kV transmission line tap will be single circuit design that will be mounted on painted or galvanized monopole steel structures. Transmission pole spacing will vary based on the final route selected for interconnection with the Baldwin Street Substation and the final design layout required to meet appropriate Metro-North and CL&P standards. (WatGen Exh. 1 at 10).

At this stage of design, WatGen plans to have 23 structures along the Metro-North ROW and 3 or 4 structures on the City property at the site of the Waterbury Waste Water Treatment Plant. Most of the towers will range between a low of 77 feet and a high of 82 feet and two towers will be approximately 125 feet in order to provide adequate clearance to CL&P distribution circuits on the South Leonard Street overpass. The route of the line is proposed to be North to South along the Metro-North ROW and West to East from the City Waste Water Treatment Plant across the Naugatuck River and into the Baldwin Street Substation. (WatGen Exh. 15, Resp. 20).

The unrefuted evidence during this proceeding establishes that the transmission line tap will comply with the Council's Best Management Practices and presents a cost-effective solution for the interconnection of the generating facility. Although the cost of the line will depend on final engineering and final construction estimates, at this point in time, with the design about 60% completed, using Valmont hybrid poles, it is estimated that the interconnection, as

proposed, will cost between $3 and $4 million. (WatGen Exh. 15, Resp. 20). Alternatively, WatGen estimates the minimum cost to construct an underground cable connection from the Site to Freight Street Substation via Bank & Jackson Streets and across State property would be approximately $9 million and from the Site to Freight Street Substation via Bank, Meadow & Freight Streets would be approximately $12 million. (WatGen Exh. 15, Resp. 40). These estimates for underground connection are based on the following assumptions that, if proved to be incorrect, would significantly increase this cost:

- The Naugatuck River crossing will be made by attaching cables to the underside of an existing, unused railroad bridge;
- Easements can be obtained at no cost from the private parties between the end of the State property and Freight Street;
- Trenching can be accomplished without the need for blasting and rock removal; and
- Environmental compliance costs related to soil excavation are limited to $100/ton.

(WatGen Exh. 15, Resp. 40).

An interconnection to Freight Street Substation would also require additional interconnection studies by ISO NE and CL&P, which would require another set of analyses that will add months to the approval process and delay the Project beyond the July 2009 contractual commercial operation date. Such a delay will result in the loss of the important ratepayer benefits that the Project would otherwise provide during the peak load season in the Summer of 2009. In addition, underground construction of a transmission line is generally far more intrusive to the environment and can actually result in higher levels of EMF exposures to the general public than the planned overhead transmission line. (WatGen Exh. 15, Resp. 40).

During the course of the proceeding, CL&P raised concerns about the construction and operation of the transmission line tap. In particular, CL&P requested that the Council impose certain conditions as part of its decision in this proceeding related to the agreements between

CL&P, WatGen and/or third parties concerning the construction and operation of the transmission line tap. (CL&P Exh. 1). First and foremost, CL&P's requested conditions are unnecessary. WatGen has indicated throughout the course of this proceeding that it understands that the construction and operation of the transmission line tap will be subject to CL&P's review and approval of all license agreements and/or easements and design and construction. (*See, e.g.,* WatGen Exh. 1 at 3). In fact, during the hearing, CL&P's witness admitted that this was the case and that WatGen has already assured CL&P that its rights would be protected. (01/08/08 Evening Tr. at 80-81). Therefore, CL&P's requested conditions are unnecessary.

Moreover, CL&P's requested conditions go beyond the scope of the Council's jurisdiction. The Council has been empowered to review the environmental effects of the Project. *See* Conn. Gen. Stat. § 16-50k(a); Conn. Gen. Stat. § 16-243m. CL&P's requested conditions, however, are not intended to address the environmental impacts, if any, associated with the Project. Rather, CL&P is seeking to have the Council dictate the terms of agreements that will be the subject of negotiations among private parties. Such a request is beyond the Council's jurisdiction and should be rejected.

3. Switchyard & Substation

The generating facility will interconnect at the CL&P Baldwin Street Substation at 115 kV through the transmission line tap being constructed as part of the Project. To accommodate this interconnection, a switchyard encompassing approximately 3,000 square feet will be constructed at the Site to the south of the generating facility. The switchyard will be separated from the remainder of the generating facility by an 8-foot high fence installed to meet Occupational Safety and Health Administration ("OSHA") requirements for this type of facility. The switchyard will contain the main generator breaker, an oil-filled 13.8/115 kV generator step-

up transformer, a dry-type station service transformer, isophase bus duct, a generator circuit breaker, a switchyard control house, breaker disconnect switches and appropriate transition structures for the interconnection to the new transmission line tap. All medium and high voltage transmission components will be above ground. (WatGen Exh. 1 at 9).

At the Baldwin Street Substation, a new termination pole or structure, underground high voltage cable, circuit breaker and disconnect switch will be added to the existing substation to accept the new line position. (WatGen Exh. 1 at 9). The following equipment will be installed at Baldwin Street Substation:

- Line Motor Operated Disconnect ("MOD")
- Mobil transformer position MOD
- 115 kV circuit breaker
- Three manual disconnect switches
- Three Potential Transformers
- Power and control cable and conduit from equipment to the control house
- One primary relay panel
- One duplex panel
- Associated protection and controls equipment.

(WatGen Exh. 15, Resp. 25).

IV. THE PROJECT WILL NOT HAVE A SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

As discussed more fully below, the unrefuted evidence presented during the course of this proceeding has established that neither the construction nor operation of the Project will have a substantial adverse environmental effect.

A. Natural Environment and Ecological Balance

In conjunction with the construction process, the Site will be remediated in accordance with the Connecticut Department of Environmental Protection's ("DEP") Remediation Standard Regulations ("RSRs") under the direction of a Licensed Environmental Professional ("LEP").

(WatGen Exh. 1 at 11). In accordance with the terms of the lease agreement with WatGen, ACB has retained Facility Support Services to perform the investigation and remediation activities at the Site. (WatGen. Exh. 7 at 5-6). These activities will enhance the characteristics of the natural environment and ecological balance in the area.

B. Public Health and Safety

As detailed below, the unrefuted evidence presented during the course of this proceeding has established that the Project will have little, if any, impact on public health and safety.

1. Electric and Magnetic Fields

The unrefuted evidence presented during the course of this proceeding establishes that the transmission line tap will comply with CL&P's requirements for the construction of new transmission lines and the Council's "Best Management Practices for Electric and Magnetic Fields." In particular: (1) the line is proposed to be located away from sensitive areas (schools, playgrounds, health care facilities) in an industrial park alongside a railroad line, (2) the line is designed to have a minimum conductor height of no less than 32 feet, and (3) the line design employs a compact conductor geometry (10 foot spacing). (WatGen Exh. 1 at 13).

Over the past three decades, research has been conducted around the world to identify whether long term exposures to electric and magnetic fields ("EMF") have health or environmental effects. Power frequency EMF (60 hertz) is found wherever electricity is generated, transmitted, delivered or used. In the United States, power lines, household electrical systems, workplace power tools, electrical appliances and motors all produce power frequency EMF. EMF produced by an overhead electric transmission line is a function of a number of factors such as operating voltage, load current, distance from the conductor and the geometric configuration of the conductors. (WatGen Exh. 1 at 12-13).

There are no federal standards for power frequency EMF. Scientific organizations have reviewed the research to date and developed general recommendations regarding EMF exposure for workers and the general public. The purpose of these guidelines is to avoid exposures to fields that could lead to adverse health effects. The International Commission on Non-Ionizing Radiation Protection ("ICNIRP") has developed guidelines as part of a program for the World Health Organization ("WHO") and recommends that the general public exposure to power frequency magnetic fields be limited to no more than 833 milligauss ("mG") and occupational exposure be limited to no more than 4,167 mG. *See* "Guidelines for limiting exposure to time varying electric, magnetic and electromagnetic fields (up to 300 GHz.)," Health Physics 74 (4) 494-522 (April 1998). (WatGen Exh. 1 at 13; WatGen Exh. 15, Resp. 23).

The proposed transmission line tap will only affect ambient levels of EMF, with the greatest effect in the immediate area of the transmission line tap. In estimating anticipated EMF from the transmission line tap, WatGen made the following conservative assumptions: (a) maximum line loading of 96 MW (based on full output without accounting for losses through the main generator step-up transformer); (b) minimum conductor height of 25 feet (actual height is expected to be 32 feet); and (c) 50 foot wide transmission ROW. Using these conservative assumptions, edge of ROW magnetic flux density is projected to be 42.9 mG on the side with the conductors and 29.6 mG on the opposite side, and ROW EMF is projected to be 0.6 kilovolt per meter ("kV/m") on the side of the ROW where the conductors are located and 0.2 kV/m on the opposite side of the ROW. These levels are well below the ICNIRP recommended exposure level of 833 mG for the general public and 4,167 mG for occupational exposure. Indeed, the worst case exposure from the transmission line tap will be approximately five percent (5%) of

this lower limit directly under the conductors at their lowest level and even lower as one moves further away from the structures. (WatGen. Exh. 1 at 14; WatGen. Exh. 15, Resp. 23).

No significant power frequency electromagnetic disturbances are expected from the generating facility. All power frequency electric fields created by the generator and auxiliary equipment will be shielded by the enclosures around them. Magnetic fields created by the generator and auxiliary equipment will be significantly mitigated by the installation configuration and their distance from the general public. Electric and magnetic fields created in the switchyard will be significantly mitigated by distance from public access. (WatGen Exh. 15, Resp. 29).

2. Fire Suppression/Emergency Response

The combustion turbine is protected with a number of redundant safety shutdown features designed to prevent catastrophic failures in the event of any malfunctions. The equipment has a carbon dioxide fire suppression system which is designed to contain any fuel fed fires. The generating facility will utilize the following fire protection systems:

- A carbon dioxide ("CO_2") fire protection system with fire detection sensors and suppression in the turbine equipment compartment;
- A concrete explosion barrier/fire wall between the generator step-up transformer and the combustion turbine;
- Fire hydrants/hose stations with water supplied to the generating facility via the City water system; and
- Building and structures will be equipped with portable fire extinguishers as required by local fire regulation.

These fire protection systems are designed to protect personnel and limit property loss and plant downtime from fire or explosion. Additionally, plant operational procedures will include all information necessary to permit all fire-fighting and other emergency response agencies to plan

and implement safe responses to fires, spills and other emergencies at the Site. (WatGen Exh. 1 at 14-15).

The 15,000 gallon aqueous ammonia tank used for the SCR system associated with the generating facility will be fitted with level alarms, area monitors, a secondary dike enclosure and a vapor suppression system within the dike area. All connecting piping will be of double wall construction. Electrical safety of the generator step-up transformer, the generator breaker and the disconnect switch is assured with a separate fenced enclosure along with high speed digital relaying designed to isolate a fault in a matter of milliseconds. (WatGen Exh. 1 at 15).

The SCR system will utilize a nineteen percent (19%) solution of aqueous ammonia. Aqueous ammonia is a solution of water and ammonia that is commonly used in industrial applications. By way of comparison, the concentration of ammonia used in household applications is typically between a ten and fourteen percent (10-14%) solution. The United States Environmental Protection Agency ("EPA") does not require the preparation of a Risk Management Plan (*see* 40 CFR Part 68) for solutions of ammonia of less than 20% concentration because the risk associated with vapor plume dispersion and transport in the unlikely event of a spill or tank rupture from such a solution is very low. (WatGen Exh. 15, Resp. 26).

The nineteen percent (19%) aqueous ammonia solution is non-flammable and is not explosive when stored at ambient temperature and pressure conditions, as is the case for the WatGen facility. The solution was specifically selected as the safest way to supply ammonia to the SCR system at this facility. The aqueous ammonia solution will be unloaded in an area specially designed to contain the entire content of the truck and will prevent the escape of liquid outside of the unloading area in the event of a rupture of an unloading hose of the delivery tanker itself. All suppliers selected to deliver the aqueous ammonia to WatGen will be required to be

equipped with all safety provisions, including the use of Department of Transportation ("DOT") qualified trailers, certified and trained drivers and appropriate hazard protection measures for unloading. (WatGen Exh. 15, Resp. 26).

The solution will be stored in a horizontal 15,000 gallon steel tank designed to applicable American Society of Mechanical Engineers ("ASME") design codes for this type of tank. The tank structure will be located 27 feet away from the existing building. There will be a concrete dike around the tank that will contain the entire contents of the tank plus an additional margin of ten percent (10%). In the event of a spill or leak, the open surface in the dike area will be covered with small hollow plastic balls that will float on the surface of the liquid and limit the amount of evaporation by up to ninety percent (90%). Due to the low vapor pressure of the aqueous ammonia solution, very little evaporation would occur. (WatGen Exh. 15, Resp. 26).

WatGen met with Chester Bennett, the Waterbury Fire Marshal, in August 2007 to discuss the Project. WatGen again met with Chester Bennett and members of his staff on January 24, 2008 to review the details of the entire Project with respect to potential Site hazards and emergency response both during construction and operation. During that meeting, the layout of equipment within the Site and in the existing mill was discussed in detail, along with specific types of equipment contained in each of the modular components of the Project. It was agreed, during the meeting, that no special training or equipment would be needed by emergency response personnel to respond to on-Site emergencies. Nevertheless, once construction is complete, WatGen will conduct familiarization tours of the Site with the Fire Department and establish emergency response protocols with the Department to be able to aggressively manage any emergency that may occur on Site. (WatGen Exh. 15, Resp. 27). Moreover, if it is later

determined that special training or equipment is required, WatGen will pay for the costs of such training or equipment. (02/01/08 Tr. at 68).

3. Security

The Site will be surrounded by an eight foot (8') tall fence, key card access gates, appropriate security lighting and video surveillance cameras. (WatGen Exh. 7 at 8). Three sides of the fence will be of solid construction with architectural features designed to deter climbing (e.g., razor wire) and the fourth side, which is located within the existing ACB fence and is not accessible to members of the general public, will be a chain link design. (WatGen Exh. 15, Resp. 33; 02/01/08 Tr. at 43, 47-48). The generating facility will be monitored and operated remotely from FirstLight Power Resources' New Milford, Connecticut dispatch office, which is staffed around the clock every day of the year, as is typical of peaking generating units. When the unit is in operation, a WatGen employee will be sent to the unit to monitor the operation of the unit. In addition, when fuel oil and ammonia deliveries are made to the facility, a WatGen employee will be in attendance to supervise and assist. (WatGen Exh. 7 at 8; WatGen Exh. 15, Resp. 17).

4. Noise

A Noise Analysis Report was completed for the Project to determine the projected increases over existing ambient conditions. The assessment consisted of: (a) determining the existing ambient noise environment through a monitoring program; and (b) completing a noise modeling/impact evaluation of the Project. The noise impact evaluation used computer modeling to determine the sound levels of the major noise producing equipment at the Project (based on data obtained from the vendors of the equipment) and evaluated those levels against

the State of Connecticut and City of Waterbury noise standards at bordering zones and nearby residential areas. (WatGen Exh. 1 at 17, Tab 14).

The noise modeling analysis included a silencer for the exhaust stack. The required noise reduction from the exhaust stack was determined by using the noise model as a design tool and adding control as needed in order to achieve compliance with the noise standard. The noise limit specifications for the exhaust stack, developed from the noise modeling, were provided to the vendor. The vendor responded that it would be able to meet the noise limit for the exhaust stack with the use of a silencer. (WatGen Exh. 15, Resp. 34).

As the noise analysis continued to be refined, it was found that the property line at 130 Washington Avenue property line adjacent to the Site was modeled incorrectly. With the property line modeled correctly, it was determined that a small exceedence of the industrial noise standards may occur in this area. Even though the noise analysis was conservative and lower noise levels than those provided in the Petition are expected, in order to further mitigate any potential off Site noise impacts, WatGen decided to modify its original fence design from a chain link fence to a solid eight (8) foot high fence around three sides of the Site, including the east side of the Property adjacent to 130 Washington Avenue. The solid fence will reduce noise levels in the vicinity of the generating facility Site. With the installation of this fence, noise levels at the 130 Washington Avenue property line would be at 66 to 67 dBA or lower. (WatGen Exh. 15, Resp. 33).

As part of its analysis, WatGen also reviewed the potential for off-Site vibrations from the generating facility. The equipment at the generating facility is designed to operate at very low vibration levels and will include sophisticated vibration monitoring and detection systems that would shut down the generating unit in the event of a vibration excursion. Accordingly, any

vibration from the generating facility would not be perceptible. Moreover, none of the equipment at the switchyard is anticipated to create vibrations. (02/01/08 Tr. at 16-18, 90-92).

Based on its analysis with the refinements discussed above, WatGen determined that, with the use of noise mitigation measures, such as a silencer in the combustion turbine exhaust stack, increases in total average noise levels would be minimal and the sound level from the Project would be in compliance with the State of Connecticut and City of Waterbury noise standards at all residential and industrial property lines. No evidence to refute this conclusion was presented.

5. Traffic

The Project will be located in an industrial area and the new generating facility will primarily occupy a former parking lot. Access to the Site will be provided from Washington Avenue, which provides a connection to Route 8. Construction of the Project is expected to last approximately 15 months, with a peak period of about three months beginning in December 2008. During Project construction, there would be a maximum projected peak number of 125 craft labor employees present at any one time, with an average number of 70 workers. Construction would generally occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. Construction access to the Site will be from Bank Street, and truck traffic during construction will be dispersed throughout the day to support both material movement and equipment deliveries. Once constructed, operation of the generating facility will only require a minimal number of employees. (WatGen Exh. 1 at 18-19; 02/01/08 Tr. at 141). Employees and deliveries will access the Site from Washington Avenue. (02/01/08 Tr. at 141).

The Traffic Impact Analysis for the Project determined that the Project will not have a significant impact on the traffic operating conditions in the surrounding area. (WatGen Exh. 1, Tab 16). No evidence to refute this conclusion was presented.

C. Scenic Values

On August 28, 2007, a field survey of potential viewsheds of the Project was conducted. (WatGen Exh. 1 at 18, Tab 15). Photographs were taken from locations with possible views of the Project and then the Project was photogrammetrically superimposed onto those photographs. Although photographs were taken along the streets from various directions around the Project, existing houses, trees and infrastructure blocked views of the Project from most locations. In fact, the closely spaced housing and mature trees in the area obstruct views of the Project from most street locations, making it difficult to find locations with clear sight lines to the Project. Nevertheless, assuming a maximum stack height of two hundred thirteen feet (213'), the exhaust stack associated with the Project will be visible from some surrounding commercial and industrial areas that have open lots and few trees and along streets with direct sight lines. (WatGen Exh. 1 at 18, Tab 15).

Based on preliminary modeling, the proposed stack height of two hundred thirteen feet (213') is the maximum required to comply with the new "CTDEP Interim PM2.5 New Source Review Modeling Policy and Procedures." However, WatGen is currently working with the DEP to determine if the height of the stack can be reduced. (02/01/08 Tr. at 18; DEP Comments). It is WatGen's intention to construct the exhaust stack at the minimum height acceptable to DEP that is protective of human health and the environment. (02/01/08 Tr. at 119-23). Based on preliminary modeling, WatGen anticipates that the height of the exhaust stack can

be significantly reduced. A reduction in the height of the stack would reduce the visibility of the Project.

The Federal Aviation Administration ("FAA") requires the lighting and/or marking of structures at or above 200 feet high. On August 23, 2007, WatGen submitted a Notice of Proposed Construction or Alteration ("Notice") to the FAA describing the proposed stack height and location relative to Waterbury-Oxford Airport, the nearest registered airport. (WatGen Exh. 1 at 12). The FAA acknowledged receipt of the Notice and indicated that marking and lighting will be required because of the proposed height of the exhaust stack. (WatGen Exh. 3). If, based on the modeling analysis WatGen submits to DEP, the height of the exhaust stack is reduced, WatGen will submit a revised Notice to the FAA with this refined information. (02/01/08 Tr. at 99). Based on FAA guidance, if the height of the stack is reduced below 200 feet, WatGen does not anticipate that any lighting or marking will be required, which would further reduce the visibility of the Project. (02/01/08 Tr. at 20-21).

D. Historic Values

Prior to submission of the Petition, WatGen contacted the Connecticut Historical Commission State Historic Preservation Office ("SHPO") about the Project. On September 18, 2007, the SHPO indicated that the Project will have no adverse effect. The SHPO noted, however, that ACB possesses historic and industrial importance and requested that certain mitigation measures be taken, including: (a) documentation of the historic value of the ACB facility to be provided to SHPO for permanent archiving and public accessibility ("Documentation Report"); (b) retention of an industrial archeologist to monitor the construction process and document any industrial archeological remains that are exposed during Project-related ground disturbances ("Documentation & Monitoring"); and (c) preparation of a brief

summary to be submitted to the Society for Industrial Archeology New England Chapter's Newsletter ("Newsletter Article"). (WatGen Exh. 1 at 16).

WatGen has agreed to implement these mitigation measures. In fact, in response to the SHPO's requests, WatGen retained an industrial archaeologist, Dr. Michael S. Raber. Dr. Raber prepared the Documentation Report, which was submitted to the SHPO on December 24, 2007. In preparing the Documentation Report, Dr. Raber reviewed information about the Project and the archaeological characteristics of the Site. Based on this review and Dr. Raber's recommendation, by letter, dated January 3, 2008, the SHPO determined that Documentation & Monitoring would not be required. At the close of the Record, Dr. Raber was preparing the requested Newsletter Article to be submitted by February 15, 2008.[2] (WatGen Exh. 4; WatGen Exh. 11; WatGen Exh. 14; 01/08/08 Afternoon Tr. at 27-28).

E. Recreational Values

The Project is located within a heavily developed commercial and industrial area between Route 8 and South Main Street ("Industrial Corridor"). According to the City's Geographic Information System ("GIS") database Parks Map, there are no recreational areas within the Industrial Corridor. The closest recreational lands are the outdoor recreational facilitates associated with the Barnard School located west of Route 8 approximately 1,500 feet from the Project and also the Washington School 1,500 feet to the east beyond South Main Street. (WatGen Exh. 1 at 17). There may also be limited recreational facilities associated with the Duggan School that is currently being renovated and which is located approximately 800 feet west of the Project. (02/01/08 Tr. at 134). Based on the location of the Project within the Industrial Corridor and the boundaries between the Project and these recreational areas created

[2] After the close of the Record, Dr. Raber did submit the Newsletter Article.

by Route 8 and South Main Street, the Project is not expected to impact recreational areas or values in the area. (WatGen Exh. 1 at 17-18).

The Naugatuck River itself is a Class C river and at this time has limited to no recreational value. (WatGen Exh. 1 at 18). During the course of the proceeding, several members of the public raised concerns about the impact of the transmission line on a proposed riverwalk. WatGen is not aware of any formal proposal for such a riverwalk. (02/01/08 Tr. at 22). Nevertheless, as WatGen explained during the hearing, except where it actually crosses the Naugatuck River, the transmission line is going to be located several hundred feet from the river and there are numerous industrial buildings between the river and the location of the transmission line. The distance of the transmission line from the river and the intervening structures should block the visibility of the transmission lines. (02/01/08 Tr. at 130-31). Thus, the Project will not impact this potential recreational resource.

F. Forests & Parks

Washington Park is located 2,500 feet east of the Site, beyond the Washington School. Based on the location of the Project within the Industrial Corridor and the boundaries between the Project and this area created by Route 8 and South Main Street, the Project is not expected to impact recreational areas or values in the area. (WatGen Exh. 1 at 17-18). In addition, WatGen has committed to fund the construction of a park in Waterbury to further enhance recreational values in the area. (02/01/08 Tr. at 25-27).

G. Air Quality

WatGen submitted an Air Permit Application for New Source Review ("Air Permit Application") to the DEP, on September 4, 2007, for approval to construct and operate the generating facility. (WatGen Exh. 1 at, Tab 10). As described in the Air Permit Application, the

Project will incorporate Best Available Control Technology ("BACT") to minimize air emissions and will comply fully with all applicable State of Connecticut and EPA emissions standards for new sources in this category. (WatGen Exh. 1 at 12).

During the course of the proceeding, concerns were raised regarding the data used to support the analysis and modeling in the Air Permit Application. To be approved for use in regulatory dispersion modeling analyses, meteorological data must meet numerous criteria with respect to the parameters measured, the period of record, the data capture rate and quality assurance. From among the available data sets that meet the required criteria, the most representative set of data for the Project Site are used for air permitting purposes; in this case, Bradley Airport data. (WatGen Exh. 15, Resp. 43).

Bradley Airport is the closest meteorological station with a full five year period of record, known high quality data and all the variables needed for air quality modeling input. Bradley Airport station is climatologically representative of Waterbury. For instance, the wind rose at both locations (i.e., Bradley and Waterbury) would be expected to be similar because both are located in river valleys that are oriented from north to south. Indeed, the National Climatic Data Center includes Bradley Airport and Waterbury in the same Central Connecticut Climate Division (a region within a state that is reasonably homogeneous with respect to climatic characteristics). (WatGen Exh. 15, Resp. 42).

DEP's Ambient Impact Analysis Guideline also recommends the use of the data from Bradley Airport for the Waterbury area, and a follow-up discussion with DEP confirmed DEP's approval of the use of the Bradley Airport data. (WatGen Exh. 15, Resp. 43). No contrary evidence was submitted to refute that WatGen used the appropriate data to support the analysis and modeling in the Air Permit Application.

During the course of the proceeding, members of the public also raised concerns about the health effects associated with air emissions from the generating facility. The EPA has established National Ambient Air Quality Standards ("NAAQS") that are designed to protect the public health and welfare with an adequate margin of safety for the most sensitive individuals (e.g., children, elderly, asthmatics). (02/01/08 Tr. at 14). As a condition of its air permit, WatGen will be required to comply with these NAAQS. (WatGen Exh. 1, Tab 10). As a consequence, no adverse health effects will result due to emissions from the generating facility. Accordingly, these concerns are unfounded.

Moreover, as a condition of its air permit, WatGen will be required to monitor and report emissions data to the DEP. In particular, WatGen will be required to perform stack testing of the emissions at the initial start of operations and stack emissions testing will be conducted for all permitted pollutants every five years thereafter. A continuous emissions monitor ("CEM") system will be installed on the stack to monitor air emissions at all times during facility operation. These emissions will be measured every 10 to 15 seconds and recorded to an electronic data management system. Alarms will be set in the control system to notify the operator if air emissions are approaching emission permit limits. If an alarm were to occur, a diagnostics would be performed and if the emissions reached or exceeded the air permit levels, the unit would be shut off. The emissions data will be uploaded to the EPA website on a quarterly basis where it will be analyzed by both EPA and the DEP. Additionally, on a semi-annual basis, WatGen, as the holder of a Title V air operating permit, will be required to certify compliance with all permit requirements and report any violations of any air emission limits to DEP immediately. (WatGen Exh. 15, Resp. 31).

Once constructed, the WatGen generating facility will be the cleanest burning fossil fuel facility with the lowest emission rates in the State of Connecticut. (01/08/08 (evening) Tr. at 23). Moreover, the operation of the WatGen facility will reduce and possibly eliminate the need for the State of Connecticut to run older, less efficient and higher emitting facilities during peak periods; thereby, reducing overall air emissions in the State of Connecticut. (01/08/08 (evening) Tr. at 23). No evidence to refute these conclusions was submitted to the Council.

H. Water Quality

As detailed below, the unrefuted evidence presented during the course of this proceeding has established that the Project will have little, if any, impact on water quality.

1. Wetlands & Watercourses

In accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council for Soil and Water Conservation, adequate and appropriate soil erosion and sedimentation control measures will be established and maintained throughout the Project construction period. To reduce the potential for pollutants being discharged into any nearby watercourse or wetland area or to area groundwater, WatGen will employ appropriate construction management practices during construction of the Project. (WatGen Exh. 1 at 19).

Based on the Wetland Zone Map from the City GIS database, no wetlands occur within the Site or along the Transmission Route. Additionally, based on field surveys, it was determined that there are no wetlands on the Site or along the proposed Transmission Route. (WatGen Exh. 1 at 19; WatGen Exh. 5).

Some of the proposed facilities, including the ULSD aboveground storage tank are proposed within the 100-foot buffer of the Naugatuck River floodplain. Best management practices such as soil erosion controls, secondary containment measures and the implementation

of a Spill Prevention, Control and Countermeasure Plan will be employed to ensure protection of the Naugatuck River. (WatGen Exh. 1 at 19-20).

The riverbank in the area of the tank is retained with a massive fitted stone wall that appears to be in excellent condition. Nevertheless, geotechnical subsurface analyses in the location of the fuel oil tank were conducted by professional civil engineers. The results of the testing confirm that the area is stable, will adequately support the tank and its contents and that foundation piles are not required for this area of the Site. (WatGen Exh. 15, Resp. 35; WatGen Exh. 15, Resp. 36).

2. Water Supply

Water supply for the generating facility will be provided by the City. This source of supply will provide water to a portable demineralizer system, which will provide water for evaporative cooling of the inlet air, the nitrogen oxide ("NOx") control system and the mechanical draft cooling tower. (WatGen Exh. 1 at 20).

The water quality required for the water injection NOx controls and the intercooler functions of the GE LMS 100 is very strict and, even with the use of potable water, will require further demineralization to ensure the purity of water to be introduced into the sensitive equipment. WatGen studied the potential use of water from the Naugatuck River or from groundwater on the property; however, due to the Class C quality of the river and the Class B quality of the groundwater, additional treatment would be required, which would make the Project uneconomical. Similarly, the use of treated effluent from the Waterbury Waste Water Treatment Plant would not be feasible because the proposed generating facility would be located approximately 1.8 miles from the Waste Water Treatment Plant and piping of the effluent would not be economical. Although WatGen did consider the use of a dry air cooling system, the

Project was bid into the DPUC assuming a wet system because the cost of implementing a dry system would otherwise render the Project uneconomical. Moreover, the Site does not have sufficient space to allow the use of an air cooling system as a rectangular footprint of approximately 150 feet by 300 feet is needed for an air cooled heat exchanger. (WatGen Exh. 1 at 20; WatGen Exh. 15, Resp. 39).

After reviewing these alternatives, WatGen met with Mr. Kenneth Skov of the City Water Department who indicated that the City had adequate supply to meet WatGen's water demand needs, even on peak water demand days. Indeed, the City has capacity of up to 27 million gallons per day but is only projected to use up to 17.5 million gallons per day through the year 2050. Therefore, there is more than adequate supply for the Project, which will require a maximum of 442,000 gallons per day or approximately one percent (1%) of the City's total capacity, if the Project operates for one full day (i.e., 24 consecutive hours). It is very unlikely that the plant will run for more than 6 to 8 hours per day during 4 to 6 weeks of the year. Therefore, the actual use of water will be substantially below this potential maximum. (WatGen Exh. 6 at 7; WatGen Exh. 15, Resp. 39).

Since the City has determined that it has adequate water supply and high quality water is required for the NOx control and intercooler functions of the plant, the use of potable water is necessary, will not create any adverse impact to the City and will provide the City with added revenue from water use charges. No evidence to refute these conclusions was presented.

3. Wastewater

Wastewater generated by on-Site processes will be minimal and will be discharged to the Waterbury sewer system without the need for pretreatment consistent with existing DEP General

Permits. Applications for these permits will be submitted to DEP prior to discharge of any wastewaters. (WatGen Exh. 1 at 21; 02/01/08 Tr. at 129).

4. Storm Water

The Site is in an area on the Property outside of the existing mill area, which is paved and already has a permitted discharge to the Naugatuck River. The generating facility will utilize the existing storm water outfalls as part of the monitored drainage from the Site. Appropriate storm water permits will be obtained from the DEP for construction activities and operation of the generating facility. (WatGen Exh. 1 at 21).

The Transmission Route will follow the existing Metro-North rail line and existing CL&P transmission line ROW. The construction of the transmission line tap will likely include the installation of augured foundations (either cast in place or pre-cast bases that will be field placed). This construction will not impact any drainage paths or create any new storm water flows. (WatGen Exh. 1 at 21).

I. Fish & Wildlife

Prior to submission of this Petition, WatGen contacted the United States Department of Fish and Wildlife Service ("USFWS") and the DEP about the Project. In response, DEP indicated that there are no known extant populations of Federal or State endangered, threatened or special concern species in the Project area. The USFWS indicated that no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the USFWS are known to occur in the Project area. (WatGen Exh. 1 at 16). This evidence was unrefuted.

V. CONCLUSION

Based on the overwhelming and unrefuted evidence in the record, the Petitioner has established that the Project provides significant benefits to Connecticut ratepayers, the City of Waterbury and the State of Connecticut and that neither the construction nor operation of the Project will have a substantial adverse environmental effect. Accordingly, the Council should issue a declaratory ruling approving the Petition as submitted.

Respectfully submitted,
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CERTIFICATE OF SERVICE

I hereby certify that on this 3rd day of March 2008, a copy of the foregoing was mailed,

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