

**Interconnection and Operating Agreement By and Between the  
Connecticut Municipal Electric Energy Cooperative and Fishers Island  
Electric Corporation**

THIS INTERCONNECTION AGREEMENT (the “Agreement”) is made and entered into this \_\_\_\_\_ date of \_\_\_\_\_, 20\_\_\_\_ by and between the Fishers Island Electric Corporation (hereinafter referred to as the Electric Distribution Company or “EDC”) with offices located at \_\_\_\_\_ and the Connecticut Municipal Electric Energy Cooperative, with offices located at 30 Stott Avenue, Norwich, Connecticut 06360. (hereinafter referred to as “CMEEC”); each of EDC and CMEEC may be referred to individually as a “Party” or collectively as the “Parties”.

**RECITALS**

A. CMEEC intends to install and operate one (1) diesel electric generating unit (rated 2.5MW in capacity) and all ancillary equipment on property owned by EDC located at 1266 Central Avenue, Fishers Island, New York (with such unit[s] and ancillary equipment herein referred to as the “Facility”);

B. The Facility is being installed and operated as part of CMEEC’s 50 in 5 project pursuant to which CMEEC may construct, install and operate an aggregate amount of up to 50 megawatts (“MW”) of electric generating capacity, comprised of up to 20 individual 2.5 megawatt ultra-low sulfur fuel oil (“USLD”) fired diesel generators and sited at multiple locations in several of the service areas of CMEEC’s member and participant systems or of customers of such members or participant systems;

C. The Facility is intended to operate in conjunction with CMEEC’s power supply arrangements for the benefit of CMEEC’s member and participant municipal electric utilities, including EDC, to reduce peak demand related and associated power supply costs. The purpose [of the 50 in 5 project] is to allow CMEEC to directly manage and control the electric loads of its members and participants

during annual and monthly regional periods of peak electric consumption;

D. The Facility, once constructed, can operate, except as provided below, when called on remotely by CMEEC during limited hours during the year (anticipated to be approximately 300 hours per year) as “behind-the-meter” resources to reduce the contribution by CMEEC’s members and participants, including EDC, to the monthly and annual peak loads experienced on the New England regional electric grid as well as operate in Island Mode when an “Emergency Condition” exists as provided in Exhibit G. of this Agreement. The Facility is not authorized to operate as follows:(except in the event of power outages or emergencies or other limited exigencies requiring limited operation), weekends; NERC holidays, defined as New Years Day, Memorial Day, Independence Day, Thanksgiving Day and Christmas Day; and between the hours of 9:00 PM to 7:00 AM,;

E. The Facility is located adjacent to and will interconnect with the electrical facilities of the EDC (as defined further below, the “EDC System”) and therefore CMEEC has requested and EDC has agreed to enter into this Agreement to interconnect the Facility with the EDC System ; and

F. EDC is willing to permit the interconnection of the Facility to the EDC System subject to the terms and conditions set forth in this Agreement.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, the Parties hereto agree as follows:

### **1. 0 Definitions**

“**Connection Facilities**” shall mean the equipment as presently in place or presently proposed to be installed, as identified in Exhibit A, in order to provide connection service and deliver energy from the Facility to EDC System.

“**Connection Point**” shall mean the physical location on the Connection Facilities and/or EDC System where the change of ownership between EDC and CMEEC occurs as such is depicted in the one-line diagram provided in Exhibit A.

**“Emergency”** shall mean any abnormal system condition that requires automatic or immediate manual action to prevent or limit loss of electrical facilities or generation supply that could adversely affect the reliability of the EDC System or the systems to which the EDC System is directly or indirectly connected; provided, however, that the inability of EDC to meet its load requirements because of insufficient generation resources shall not constitute an Emergency.

**“Good Utility Practice”** shall mean any of the practices, methods and acts engaged in or approved by a significant proportion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a spectrum of acceptable practices, methods or acts.

**“EDC System”** shall mean the electric wires, equipment, and other facilities owned or controlled by EDC on EDC’s side of the Connection Point which are normally operated to provide distribution service to the EDC’s customers.

**“System Protection Facilities”** shall mean the equipment required to protect (1) the EDC System and the systems of others connected to the EDC System from faults occurring at the Facility, and (2) the Facility from faults occurring on the EDC System or on the systems of others to which the EDC System is directly or indirectly connected, all of which are identified on Exhibit D

**“System Upgrades”** shall mean modifications or improvements to the EDC System required in order to interconnect the Facility with the EDC System and are as identified on Exhibit E This equipment shall be owned and maintained by the EDC but CMEEC shall be billed for the cost of maintaining such System Upgrades.

## **2. 0 Basic Understandings.**

This Agreement governs the terms and conditions under which the EDC shall provide CMEEEC with the ability to operate the Facility in parallel with the EDC System and to deliver the electric output of the Facility to the EDC System. A description of the Facility as studied and incorporating any EDC approved modifications is attached hereto as Exhibit B.

Any changes to the design of the Facility as it is depicted and specified in either Exhibit A and/or Exhibit B must be approved by EDC in writing in advance of the construction of those design changes. Only such EDC-approved written modifications to the Facility will be made during construction. The Facility may not operate in parallel with the EDC System until commissioning and testing has been completed to the satisfaction of EDC and EDC has provided formal authorization in the form of a written document stating that operating in parallel is authorized by EDC. The written authorizations will not be effective unless accompanied by a description of the Facility that incorporates all changes made to the design of the Facility since the application was filed, including all changes made during construction.

## **2.1. Parties' General Obligations.**

**2.1.1. CMEEEC.** CMEEEC will install the Facility and install or cause to be installed at its own cost and expense, the Connection Facilities as set forth in Exhibits A and as set forth in Exhibit B, and as modified following approval by EDC as provided in 2.0 above. CMEEEC shall operate and maintain the Facility and Connection Facilities located on its side of the Connection Point. CMEEEC will comply with the Joint Operating Procedures set forth herein as Exhibit G.

**2.1.2 EDC.** EDC will install and operate or cause to be installed and operate such Connection Facilities as are located on its side of the Connection Point and shall provide interconnection service to allow the Facility to operate in parallel with the EDC System and to deliver the Facility's electric output to the EDC System subject to the provisions of this Agreement. EDC will comply with the Joint Operating Procedures set forth herein as Exhibit G. The cost, installation and

design of the Connection Facilities located on the EDC side of the Connection Point shall be as provided in Exhibit G. of this Agreement.

### **3.0 Entire Agreement.**

This Agreement, including any exhibits, attachments or appendices, and including the 50 in 5 Joint Operating Agreement Procedures, attached hereby as Exhibit G., all of which are incorporated into this Agreement by reference, represents the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each Party also represents that in entering into this Agreement it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

### **4.0 Term of Agreement.**

This Agreement shall become effective upon execution by the Parties and shall continue for a period of ten years and year-to-year thereafter until terminated, with not less than one year's prior written notice by the terminating Party to the other Party, or until the date and time that the Facility permanently ceases to operate within the EDC System as determined by EDC, or until terminated as provided in Article 5.0 below, whichever date should first occur.

**5.0 Termination.** This Agreement may be terminated under the following conditions:

**5.1** The parties mutually agree in writing to terminate this Agreement.

**5.2** This Agreement may be terminated upon a Party's Default in accordance with the provisions of Article 21.

**5.3** EDC may terminate this Agreement if CMEEC (1) operates the Facility in parallel with EDC System prior to receiving written authorization to operate in parallel with the EDC System; (2) fails to receive by December 31, 2011

authorization to operate in parallel with the EDC System;(3) does not construct the Facility in accordance with the description provided in Exhibit A and Exhibit B; (4) is discovered at any time to have modified the Facility without the written approval of EDC where such modification may reasonably be expected to impact the EDC; (5) fails to energize the Facility within twelve (12) months of the written authorization to operate or (6) permanently abandons the Facility. Permanently abandon means the Facility is no longer used by CMEEC and is not intended to be used by CMEEC in the future.

**5.4 Survival of Obligations:** The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.

**5.5 Related Agreements.** This Agreement shall terminate concurrently with the Ground Lease entered into by and between the EDC and CMEEC dated \_\_\_\_\_, (“Ground Lease”) unless the Parties have agreed otherwise in writing.

## **6.0 General Payment Terms.**

**6.1** CMEEC shall be responsible for the system modification costs and payment terms identified in this Agreement and any approved cost increases. All work performed by EDC at the request of CMEEC shall be reimbursed by CMEEC on submission of an invoice in accordance with this Agreement.

**6.2** Except where otherwise provided in Article 7.4 of this Agreement, each Party shall be responsible for all expenses associated with (1) operating its own property, equipment, lines, facilities, and appurtenances on its side of the Connection Point, and (2) operating its Connection Facilities.

## **7. 0 Operating Requirements**

**7.1 General Operating Requirements:** CMEEC shall operate and maintain its Facility in accordance with (1) Good Utility Practice, (2) in a safe and reliable manner; (3) in accordance with applicable operational and/or reliability criteria, protocols, and directives, including those of EDC, NERC and ISO-NE; (4) in accordance with the purposes of the 50 in 5 program; and (5) in accordance with the provisions of this Agreement;

CMEEC shall continue to comply with all applicable laws and requirements after the interconnection has commenced. In the event that EDC has reason to believe that the Facility may be a source of problems for EDC, EDC has the right to install monitoring equipment at a location chosen by EDC to determine the source of the problems. EDC agrees to provide advance notice of such installation to CMEEC. If CMEEC's equipment interferes with EDC's equipment and/or operations or other customer's equipment, EDC shall have the right, on notice to CMEEC, to disconnect the Facility from EDC. The cost of the monitoring equipment will be borne by EDC unless the problems are demonstrated to be caused by the Facility or if the test was performed at the request of CMEEC.

**7.2 No Adverse Effects; Non-interference:** EDC shall notify CMEEC orally with written confirmation via e-mail, fax or letter, if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other customers served from the EDC System or if operation of the Facility could cause damage to the EDC System or affected systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 519 as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other in writing of any emergency or hazardous condition or occurrence with its equipment or facilities, which could affect the operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

EDC shall operate the EDC System in such manner so as to not unreasonably interfere with the operation of the Facility. CMEEC shall protect itself from normal disturbances propagating through the EDC System. Examples of such

disturbances could be, but are not limited, to, single-phasing events, voltage sags and spikes from remote default on EDC System and outages on EDC's System.

**7.3. Safe Operations and Maintenance:** EDC and CMEEC agree that all work performed by either Party that may reasonably be expected to affect the other Party shall be performed in accordance with Good Utility Practice and all applicable laws, regulations, and other requirements pertaining to the safety of persons or property. A Party performing work within the boundaries of the other Party's facilities must abide by the safety rules applicable to the site.

Each Party shall operate, maintain, repair and inspect and shall be fully responsible for all facilities that it now or hereafter may own except as specified below. EDC and CMEEC shall each provide equipment on its respective side of the Connection Point that adequately protects EDC's electric system, personnel and other persons from damage and injury. If EDC has constructed or owns facilities that are identified at the time of interconnection as specifically required by or as a result of the interconnection, CMEEC will be required to pay for EDC's cost of maintaining and repairing those facilities. Any such facilities shall be identified on Exhibit B.

**7.4 Testing of the Facility:** Both Parties acknowledge that maintenance testing of the protective relay is imperative for safe, reliable operation. The test cycle for protective relaying shall be the more frequent of either once every twenty-four (24) calendar months or per the manufacturer's recommendation. CMEEC shall provide copies of these test records to EDC. Failure to adhere to these testing guidelines shall be sufficient cause to require the Facility to be disconnected from the EDC System.

**7.5 Access to the Facility:** CMEEC shall permit EDC employees and agents to enter the Facility at any reasonable time upon seven calendar days notice for the purpose of inspecting and/or testing the Facility to insure its safe and satisfactory operation. Such inspections shall not relieve CMEEC from its obligation to maintain the Facility and any related equipment owned by CMEEC in safe and satisfactory



operating condition. EDC shall have the right to witness any testing by CMEEC of the Facility and shall receive prior notices of the times and dates of all testing schedules.

CMEEC shall furnish and install an interconnection disconnect switch. The EDC shall have access to the disconnect switch and generator breaker of the Facility at all times.

**7.6 Switching and Tagging Rules.** Each Party shall abide by the Switching and Tagging Rules specified in Exhibit C. for obtaining clearances for work or for switching operations on equipment.

## **8.0 Disconnection**

The circumstances under which and the procedure for disconnection of the Facility from the electrical of the EDC are governed by the operating procedures, Exhibit G. of this Agreement.

**8.1 Emergency Conditions:** EDC or CMEEC shall have the right, consistent with Good Utility Practice, to immediately and temporarily disconnect the Facility without prior notice if, in EDC's or CMEEC's reasonable judgment, continuation of such service to or from the Facility is imminently likely (1) to endanger persons or damage property or (2) cause a material adverse effect on the integrity or security of, or damage to, the EDC System or to the electric system of others to which EDC System is directly connected; or (3) expedite restoration of service.

EDC and CMEEC shall use reasonable efforts to minimize the effect of such actions or inactions on the Facility and/or the EDC System.. Each Party shall immediately notify the other Party when it becomes aware of an Emergency condition that may reasonably be expected to affect the EDC System or CMEEC Facility. To the extent information is known, the notification shall describe the emergency conditions, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities, and operations, its anticipated duration and the necessary corrective action. Each Party shall promptly allow

reconnection, in the manner provided in Article 9.6 below, when the condition that caused or would cause the Emergency ceases to exist.

**8.2 Routine Maintenance, Construction and Repair:** In accordance with Good Utility Practice, each Party may, in close cooperation with the other, remove from service its facilities that may impact the other Party's facilities as necessary to perform routine maintenance or testing or to install or replace equipment. Absent the existence or imminence of an Emergency, the Party scheduling a removal of a facility from service will use all reasonable efforts to schedule such removal on a date mutually acceptable to both Parties but on not less than seven (7) calendar days notice.

**8.3 Forced Outages:** During any forced outage, EDC shall have the right to suspend interconnection service to effect immediate repairs on the EDC System. EDC shall make all reasonable efforts to provide CMEEC with prior notice of the suspension. Where circumstances do not permit such prior notice to CMEEC, EDC may interrupt interconnection service and disconnect the Facility from the EDC System without such notice

**8.4 Non-Emergency Adverse Operating Effects:** EDC may disconnect, without liability, the Facility if the Facility is having an adverse operating effect on EDC System or on other customers. EDC may permanently disconnect the Facility if the Generator fails to correct such adverse operating effect after written notice has been provided and forty-five (45) calendar days to correct such adverse operating effect has elapsed.

**8.5 Modification of the Facility by CMEEC:** EDC has the right to immediately suspend interconnection service in cases where a material modification of the Facility or interconnection facilities has a material adverse impact on the EDC System where such modifications have been implemented without the prior written authorization of EDC.

**8.6 Re-connection:** Any curtailment, reduction or disconnection shall continue

only for so long as reasonable necessary. CMEEC and EDC shall cooperate with each other to restore the Facility and the EDC System respectively to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

**8.7 Permanent Disconnection:** CMEEC has the right to permanently disconnect the Facility at any time with thirty (30) calendar days written notice to EDC. EDC may permanently disconnect the Facility upon termination of the Agreement in accordance with the terms thereof and in the case of CMEEC's inability to correct an adverse operating effect, after notice thereof as set forth herein.

**8.8 Disconnection:** If, for any reason, CMEEC's Facility is disconnected from the EDC System, any switching device used to disconnect the Facility from the EDC System shall remain open until EDC approves the reclosure.

For purposes of this Section, protective devices may be deemed by EDC to be not properly operating if EDC's review under this Agreement discloses irregular or otherwise insufficient maintenance on such devices or maintenance records do not exist or are otherwise insufficient to demonstrate that adequate maintenance has been and is being performed.

#### **9. 0 Metering.**

CMEEC shall provide, install, own and maintain at its own cost, two meters per diesel generator. These meters shall consist of a station service meter and a net revenue meter both of which shall be installed at the Facility. The specific technical specifications of these meters are provided in Exhibit F.

#### **10.0 Assignment.**

In the manner provided in Article 14 of the Ground Lease, each Party grants to the other its consent to a collateral assignment of this Agreement to the other Party's

lenders; and (b) CMEEC is authorized to sell, convey, lease, assign, mortgage, encumber or transfer all or part of its interest herein or under the Agreement to one or more Assignees. "Assignees" for purposes of this Article shall mean any one or more parties involved in the development, financing or refinancing of the Facility, including without limitation any lender to CMEEC or with respect to the Facility or any purchaser or lessee of the Facility. CMEEC or an Assignee that has assigned an interest permitted under this Article shall give notice of the assignment to EDC, provided that the failure to give such notice shall not constitute a default under this Agreement but rather shall only have the effect of not binding EDC with respect to such assignment until such notice shall have been given. In the event of an assignment under this Article, the non-assigning Party agrees to execute a reasonable consent document with respect to the Agreement at the request of the assigning Party or its lenders, with the reasonable, documented costs of securing such consent document to be reimbursed to EDC by CMEEC. Any Assignee shall be an entity authorized to own and operate the Facility under New York State law, including pursuant to any required authorizations or approvals issued or to be issued by the New York State Public Service Commission. Any Assignee, other than assignees under such assignments as may be authorized under the Financing Agreement, shall be subject to the prior consent of the EDC, such consent not to be unreasonably withheld. CMEEC shall provide EDC with such information as is reasonably requested by EDC regarding the Assignee and the terms of the assignment. Unless otherwise agreed by EDC, the CMEEC shall remain subject to the CMEEC's obligations set forth in this Agreement, notwithstanding any such assignment.

#### **11.0 Confidentiality.**

EDC shall maintain confidentiality of all information so designated by CMEEC and CMEEC shall maintain the confidentiality of all information so designated by the EDC, except as otherwise required by system operators, applicable laws and regulations, or if litigation to enforce this agreement is required to the extent that

such litigation requires disclosure of such information.

## **12.0 Insurance Requirements.**

In connection with CMEEEC's performance of its duties and obligations under this Agreement, CMEEEC shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than the limits specified in Article 5 of the Ground Lease.

### **12.1 Insurer Requirement and Endorsements**

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in the State of Connecticut who have a rating of A+ or better from Moody's or Standard and Poor's or A.M. Best . In addition, all insurance shall: (1) include EDC as an additional insured (2) contain a severability of interest clause or cross-liability clause; (3) provide that EDC shall not incur liability to the insurance carrier for payment of premium for such insurance; and (4) provide for thirty (30) calendar days written notice by certified mail received by EDC prior to cancellation, termination, or material change of such insurance.

### **12.2 Evidence of Insurance**

Evidence of the insurance required shall state that coverage provided is primary, and is not excess of or contributing with any insurance or self-insurance maintained by EDC.

CMEEEC is responsible for providing EDC with evidence of insurance in compliance with this Agreement on an annual basis.

Prior to EDC commencing work on system modifications related to the interconnection of the Facility, CMEEEC shall have its insurer furnish to EDC certificates of insurance evidencing the insurance coverage required above. CMEEEC shall notify and send to EDC a certificate of insurance for any policy written on a "claims-made" basis. EDC may at its discretion require CMEEEC to

maintain tail coverage for three (3) years on all policies written on a "claims-made" basis.

All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to EDC.

### **13. Indemnification.**

**13.1** CMEEEC shall indemnify, defend, and hold EDC and its trustees, directors, officers, employees and agents, harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceeding of any nature whatsoever for personal injury (including death) or property damage to unaffiliated third parties that arise out of or are in any manner connected with the performance or non-performance under this Agreement. The provisions of this paragraph shall not apply if any such personal injury or property damage is held by a court of competent jurisdiction not to have been caused by the sole negligence or intentional wrongdoing of CMEEEC, its agents or employees.

**13.2.** EDC shall indemnify, defend, and hold CMEEEC and its trustees, directors, officers, employees and agents, harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceeding of any nature whatsoever for personal injury (including death) or property damage arising from any and all actions relating to arising out of any material failure of EDC to observe or perform any term or provision of the Agreement that is EDC's obligations to perform. The provisions of this paragraph shall not apply if any such personal injury or property damage is held by a court of competent jurisdiction not to have been caused by the sole negligence or intentional wrongdoing of EDC, its agents or employees.

**13.3.** Except as otherwise provided herein, it is understood and agreed that

neither Party shall be liable pursuant to statute, contract, in tort (including negligence), strict liability, or otherwise to the other Party, its agents, representatives, its affiliated and associated companies, and/or its assigns, for any indirect, incidental or consequential loss or damage whatsoever, including, but not limited to, loss of profits or revenue on work not performed, for loss of use of or under-utilization of the other Party's facilities, for loss of use of revenues or loss of anticipated profits, resulting from either Party's performance or non-performance of an obligation imposed on it by this Agreement.

**13.4** EDC makes no warranty or representation whatsoever regarding the accuracy, completeness, or usefulness of the services provided herein (including any equipment or materials ordered and/or purchased hereunder), and EDC expressly disclaims any and all warranties, whether expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. EDC's performance of the services shall not be construed as confirming or endorsing the suitability of the services to connect the Facility to EDC's facilities, or as any warranty of safety, durability, reliability or efficacy of the services for any use or purpose.

#### **14.0 Limitation of Liability.**

Each Party's liability to the other Party for any loss, cost, claim, injury, liability or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental special, consequential or punitive damages of any kind what so ever.

#### **15. 0 Cooperation of Parties.**

The Parties agree to confer regularly to coordinate the planning and scheduling of preventative and corrective maintenance and testing of its facilities and equipment. Each Party shall conduct routine preventive and corrective maintenance activities

as planned and scheduled in accordance with this section. Each Party shall provide advance notice to the other Party before undertaking any work in these areas, especially in electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

#### **16.0 (RESERVED)**

**17. 0 Permits and Approvals.** CMEEC is responsible for obtaining, at its cost, all environmental and other permits required by governmental authorities for the construction and operation of the Facility. EDC assumes no responsibility for obtaining permits, advising with respect to required permits, or assuring that proper permits have been obtained. CMEEC, if requested by EDC, shall provide to EDC a copy of any permit applicable to the Facility.

#### **18. 0 Force Majeure.**

**18.1.** The Party unable to carry out an obligation imposed on it by this Agreement due to Force Majeure, shall notify the other Party in writing or by telephone within a reasonable time after the occurrence of the cause relied on. **“Force Majeure”** shall mean an event or occurrence or circumstance beyond the reasonable control of the Party claiming *Force Majeure*, including, but not limited to: acts of God; labor dispute (including strikes); floods; earthquakes; storms; fires, or lightning; epidemics; wars; riots; civil disturbances; sabotage; acts of public enemy; explosions; curtailments; orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, or any other event or cause which is beyond the claiming Party’s reasonable control, and which wholly or in part prevents the claiming Party from performing its obligations under this Agreement. Mere economic hardship of a Party does not constitute *Force Majeure*. A *Force Majeure* event does not include an act of negligence or intentional wrongdoing. Neither Party will be considered in Default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of *Force Majeure*. However, a Party whose performance under this Agreement is hindered by an event of *Force Majeure* shall make all reasonable



efforts to perform its obligations under this Agreement.

**18.2.** A Party shall not be responsible for any non-performance under the Agreement due to Force Majeure whether occurring on the EDC System, the Facility, Connection Facilities or any connecting electric system affecting the Party's operations. A Party shall be excused from whatever performance is affected only while a "Force Majeure" situation exists and while the Party attempts in good faith to alleviate such situation, except with respect to any labor disturbance.

**19. 0 Payment and Billing.**

Within a reasonable time after the first day of each month, each Party shall prepare and deliver to the other Party an invoice for those reimbursable services provided to the other Party under this Agreement during the preceding month.

**19.1 Invoice:** Each invoice shall delineate the month in which the services were provided, shall fully describe the services rendered, and shall be itemized to reflect the services performed or provided.

**19.2 Payment:** The invoice shall be paid within thirty (30) calendar days of receipt. All payments shall be made in immediately-available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party.

**19.3 Disputes:** Disputed amounts shall be paid on or before the invoice payment due date. In the event the dispute is resolved in favor of the Party disputing payment, the Party required to pay back disputed amounts shall, within thirty (30) days of resolution of the dispute, make payment with interest as calculated in accordance with Section 19.5. The Party disputing payment may pay into an independent escrow account the amount of the invoice in dispute, pending resolution of such dispute.

**19.4 Waiver:** Payment of an invoice shall not relieve the paying Party from any

other responsibilities or obligations it has under this Agreement, nor shall such payment constitute a waiver of any claims arising hereunder.

**19.5 Interest:** Interest on any unpaid amounts, including disputed amounts, shall be calculated using an interest rate equal to 0.5 percent per month, not to exceed the maximum rate allowed by applicable law. Interest on unpaid amounts shall be calculated from the due date of the invoice to the date of payment. When payments are made by mail, invoices shall be considered as having been paid on the date of receipt by the other Party.

**19.6 Payment during Dispute:** In the event of a billing dispute between EDC and the CMEEC, each Party shall continue to provide services and pay all invoices.

**19.7 Collection Expenses:** The prevailing Party shall be entitled to payment from the other Party for the costs of collecting amounts due under this Agreement, including attorney fees and expenses and the expenses of arbitration.

**20.0 Notices.**

Any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party to the other may be so given, tendered or delivered, as the case may be, by depositing the same in any United States Post Office with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out below:

**To EDC:**

Fishers Island Electric Corporation

Attention: President

Drawer E  
Fishers Island, Southold  
New York 06390

With copies to:

Christopher D. Roosevelt, Esq.  
Banks, Shapiro, Gettinger & Waldinger, LLP  
118 North Bedford Rd. P.O. Box 320  
Mount Kisco, NY 10549-0320

and

Christopher D. Roosevelt, Esq.  
88 Ely's Ferry Rd.  
Lyme, CT 06371-3409

**To CMEEC:**

30 Stott Avenue  
Norwich, Ct. 06360  
Attention: Director, Engineering Services

**21.0 Defaults and Remedies.**

Any one of the following shall constitute an "Event of Default":

(a) The failure to pay any amount when due;

- (b) The failure to comply with any material term or condition of this Agreement, including but not limited to any material breach of a representation, warranty or covenant made in this Agreement;
- (c) If a Party; (1) becomes insolvent; (2) makes a general assignment for the benefit of its creditors; or (3) consents to the appointment of a receiver, trustee or liquidator;
- (d) Assignment of this Agreement in a manner inconsistent with the terms of this Agreement;
- (e) Failure of either Party to provide such access rights, or a Party's attempt to revoke or terminate such access rights, as provided under this Agreement; or;
- (f) Failure of either Party to provide information to the other Party as required under this Agreement provided the Party entitled to the information under this Agreement requires such information to satisfy its obligations under this Agreement.

**21.1 Continued Operation:** In the event of a Breach by either Party, the Parties shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for EDC to operate and maintain the EDC System, or for CMEEC to operate and maintain the Facility, in a safe and reliable manner.

**21.2 Cure and Default:** Upon the occurrence of an event of Breach, the Party not in Breach (hereinafter the "Non-Breaching Party"), when it becomes aware of the Breach, shall give written notice of the Breach to the other Party (the "Breaching Party") and to any other person a Party to this Agreement identifies in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps

necessary to cure such Breach. Upon receiving written notice of the Breach hereunder, the Breaching Party shall have thirty (30) days to cure such Breach. If the Breach is such that it cannot be cured within thirty (30) days, the Breaching Party will commence in good faith all steps as are reasonable and appropriate to cure the Breach within such thirty (30) day time period and thereafter diligently pursue such action to completion. In the event the Breaching Party fails to cure the Breach, or to commence reasonable and appropriate steps to cure the Breach, within thirty (30) days of becoming aware of the Breach, the Breaching Party will be in Default of the Agreement.

**21.3 Remedies.** Notwithstanding the foregoing, upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to; (1) commence an action to require the Defaulting Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (2) reimbursement by Defaulting Party for any fines, other monetary penalties, and expenses incurred by non-Defaulting Party as a result of such breach or violation and; (3) exercise such other rights and remedies as it may have in equity or at law. If with respect to an Event of Default, in EDC's opinion, the default, or series of defaults, are of sufficient magnitude, frequency, or duration, as to inhibit either EDC's, or any other entity interconnected to the EDC System, ability to operate in a safe and reliable manner, then EDC may disconnect CMEEC's Facility until such time as the Default has been corrected, or termination of this Agreement.

## **22.0 MISCELLANEOUS.**

**22.1 Waiver:** Any waiver at any time by either Party of its rights with respect to a Default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any subsequent default or other matter.

**22.2 Governing Law:** This Agreement shall be interpreted, governed by, and construed under the laws of the State of New York . The parties agree and

stipulate that in the event any litigation occurs concerning or arising out of this Agreement, the sole venue of any legal action shall be the State of New York.

**22.3 Headings not to affect Meaning:** The descriptive headings of the various Sections and Articles of this Agreement have been inserted for convenience of reference only and shall in no way modify or restrict any of the terms and provisions hereof.

**22.4 Amendments:** Any amendment made to the Agreement shall be in writing and executed by both Parties. Nothing contained in this Agreement shall be construed as affecting in any way, the right of EDC to, at any time, revise charges, pricing, terms and conditions, classification of service, or to make other amendments to its general rates and services or to make modifications to the EDC System as may be required pursuant to Good Utility Practice.

**22.5 Binding Effect:** This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**IN WITNESS WHEREOF,** the Parties hereto have caused this Agreement to be duly executed by their duly authorized officers on the day and year first above written.

**CMEEC**

By \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

**EDC**

By \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

## **LIST OF EXHIBITS**

**Exhibit A. One-line Diagram with Point of Interconnection**

**Exhibit B. Description of Facility**

**Exhibit C. Generator Technical Specifications**

**Exhibit D. Generator System Protection Devices**

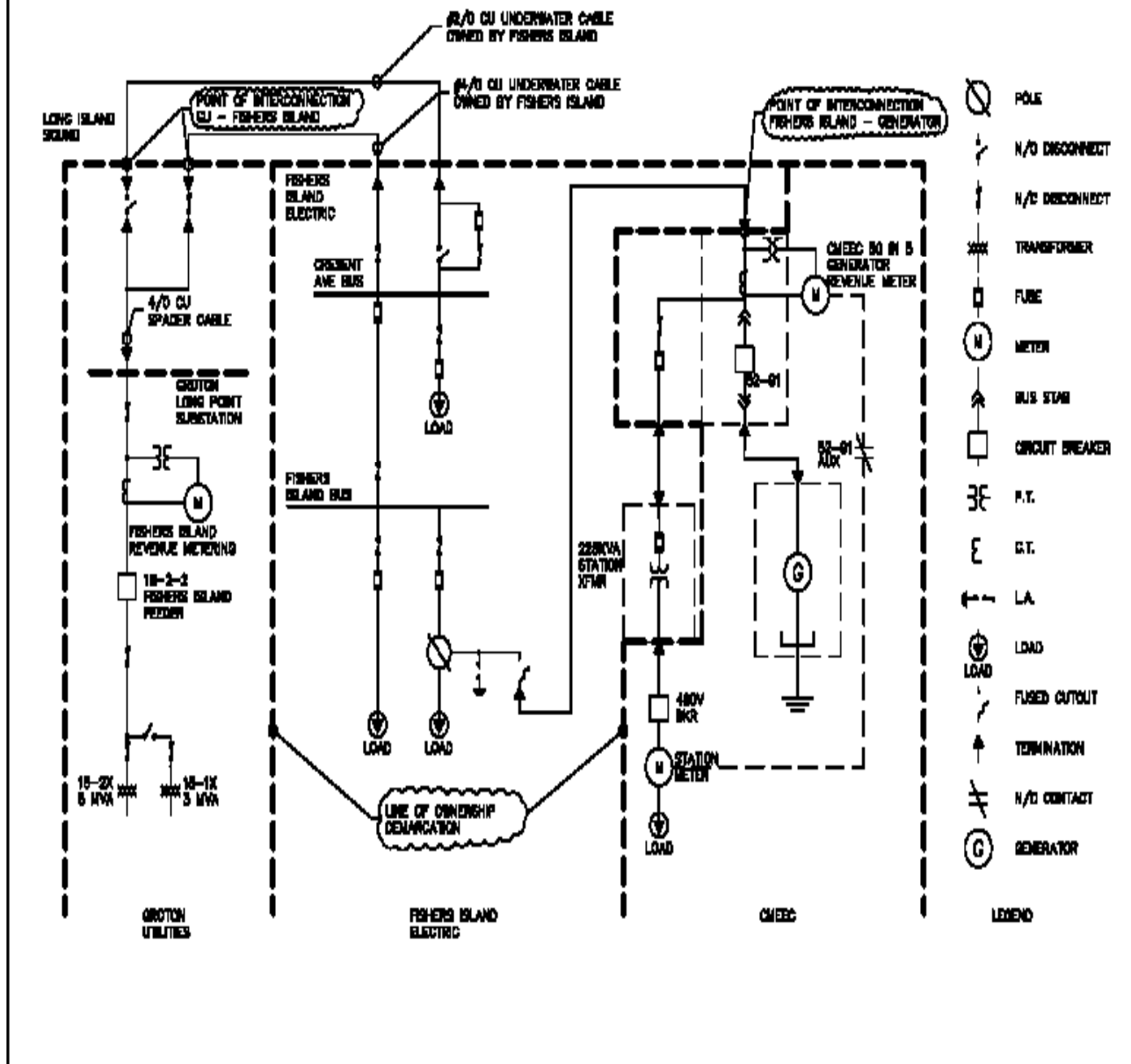
**Exhibit E. System Upgrades**

**Exhibit F. Description of Metering**

**Exhibit G. Joint Operating Procedures**



# EXHIBIT A

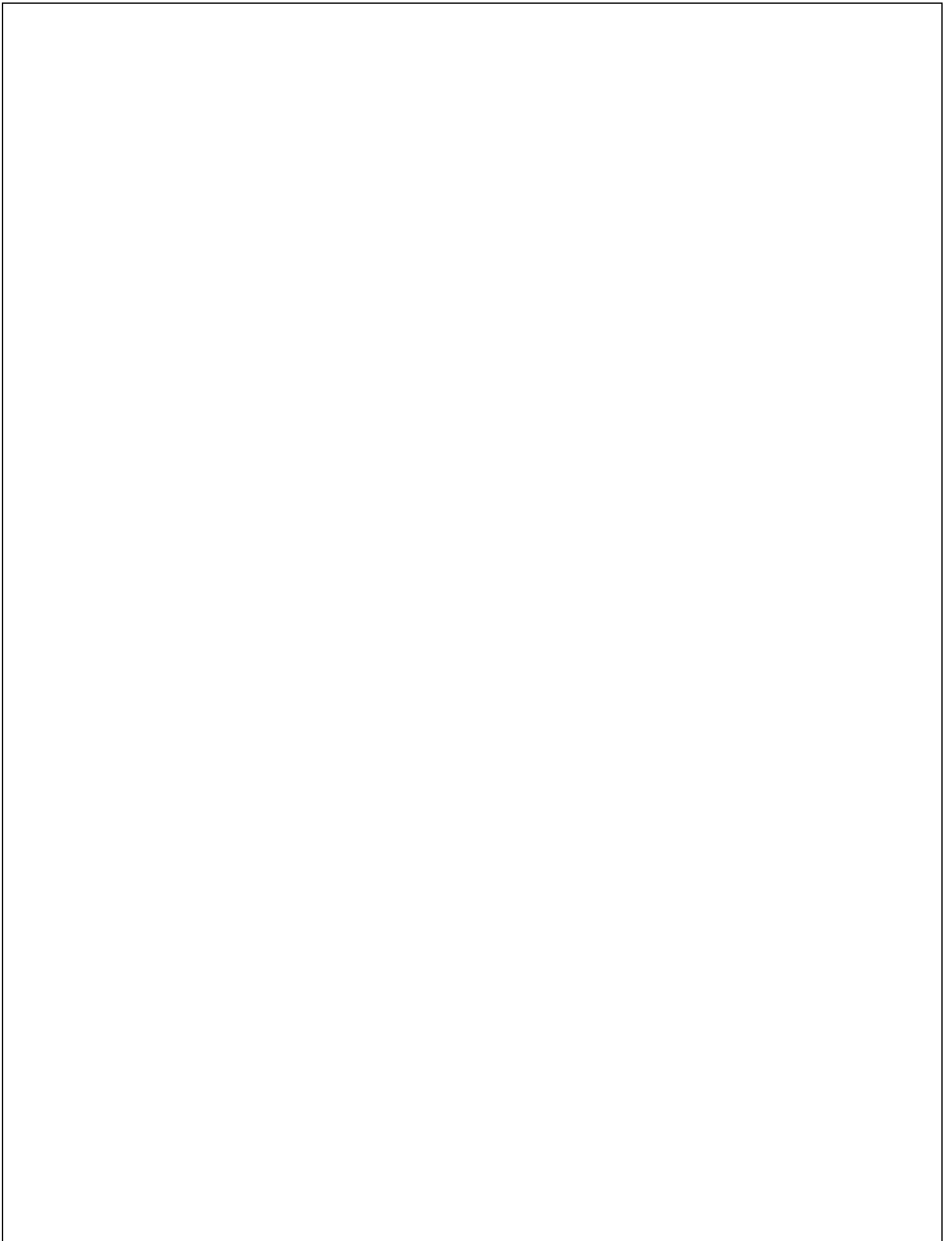


## Exhibit B

### Description of Facility:

The Generation Facility is located at 1866 Central Avenue, Fisher's Island New York. The facility consists of the following major components:

- a) One (1) Cummins 2500DQLC Diesel Generator set rated at 2490KW, 13.8KV, three phase, 60 HZ, 1800RPMs and required support systems.
- b) One (1) Diesel Generator enclosure manufactured by Acoustical Sheetmetal Incorporated (ASI). The enclosures are designed to reduce in a free field generator noise to 65db/A at fifty (50) feet from the enclosure. Each enclosure contains a UL-142 listed sub-tank and rupture tank. The sub-tank is sized to contain 4200 gallons of fuel. The rupture tank is sized to contain 110% of the sub-tank.
- c) One (1) 225KVA, 8320V/480V, three phase pad mounted station service transformer.
- d) One (1) Miratech Corporation Combination Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF) emissions reduction system.
- e) One (1) Assmann 1550 Gallon Crosslink polyethylene urea tank with concrete containment structure and rain cap.
- f) One (1) ASI Connex 60 SCADA Remote Terminal Unit and security camera system for remote communications and monitoring of the Diesel Generator site.
- g) Ground Grid
- h) Minimum 8 foot high fence and gates with three rows of barbed wire for perimeter security.



**Model: DQLC**  
**Frequency: 60**  
**Fuel type: Diesel**  
**KW rating: 2500 standby**  
**2335 prime**  
**1950 continuous**

➤ **Generator set data sheet**  
**2500 kW standby**

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**Power  
Generation**

<b>Exhaust emission data sheet:</b>	<b>EDS-1074</b>
<b>Sound performance data sheet:</b>	<b>MSP-1050</b>
<b>Cooling performance data sheet:</b>	<b>MCP-164</b>
<b>Prototype test summary data sheet:</b>	<b>PTS-272</b>
<b>Remote radiator cooling outline:</b>	<b>0500-4259</b>
<b>High ambient air temperature radiator cooling outline (ship loose):</b>	<b>0500-4258</b>
<b>Enhanced high ambient air temperature radiator cooling outline (ship loose):</b>	<b>0500-4490</b>

<b>Fuel consumption</b>	<b>Standby</b>				<b>Prime</b>				<b>Continuous</b>
	<b>kW (kVA)</b>				<b>kW (kVA)</b>				<b>kW (kVA)</b>
<b>Remote cooling system ratings</b>	2500 (3125)				2335 (2920)				1950 (2438)
<b>40 °C locally mounted radiator cooling system ratings.</b>	2500 (3125)				2335 (2920)				1950 (2438)
<b>50 °C locally mounted radiator cooling system ratings.</b>	2500 (3125)				2335 (2920)				1950 (2438)
<b>Load</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>Full</b>
<b>US gph</b>	50	92	130	170	48	84	120	156	132
<b>L/hr</b>	189	322	492	644	181	320	457	592	500

<b>Engine</b>	<b>Standby rating</b>	<b>Prime rating</b>	<b>Continuous rating</b>
Engine manufacturer	Cummins Inc.		
Engine model	QSK78-G6		
Configuration	Cast Iron, V 18 cylinder		
Aspiration	Turbocharged and low temperature aftercooled		
Gross engine power output, kWm (bhp)	2818 (3778)	2515 (3371)	2115 (2835)
BMEP at set rated load, kPa (psi)	2420 (351)	2160 (313)	1817 (263)
Bore, mm (in)	170.0 (6.69)		
Stroke, mm (in)	190.0 (7.48)		
Rated speed, rpm	1800		
Piston speed, m/s (ft/min)	11.4 (2243)		
Compression ratio	15.3:1		
Lube oil capacity, L (qt)	413 (436)		
Overspeed limit, rpm	2100		
Regenerative power, kW	357		

<b>Fuel flow</b>	<b>Standby rating</b>	<b>Prime rating</b>	<b>Continuous rating</b>
Maximum fuel flow, L/hr (US gph)	2234 (590)		
Maximum fuel restriction at injection pump with clean filter, kPa (in Hg)	17 (5)		
Maximum fuel inlet temperature, °C (°F)	70 (160)		

<b>Air</b>			
Combustion air, m <sup>3</sup> /min (cfm)	224 (7915)	211 (7450)	192 (6795)
Maximum air cleaner restriction, kPa (in H <sub>2</sub> O)	6.2 (25)		
Alternator cooling air, m <sup>3</sup> /min (cfm)	178 (6278)		

<b>Exhaust</b>			
Exhaust flow at set rated load, m <sup>3</sup> /min (cfm)	528 (18650)	487 (17225)	432 (15250)
Exhaust temperature, °C (°F)	463 (865)	434 (820)	416 (780)
Maximum back pressure, kPa (in H <sub>2</sub> O)	6.7 (27)		

<b>High ambient air temperature radiator cooling (ship loose)</b>			
Ambient design, °C (°F)	38 (100.4)		
Fan load, kW <sub>m</sub> (HP)	88 (118)		
Coolant capacity (with radiator), L (US gal)	450 (119)		
Cooling system air flow, m <sup>3</sup> /min (scfm)	3002 (106000)		
Total heat rejection, MJ/min (Btu/min)	113 (107000)	97 (91800)	79 (74700)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	1.69 (0.5)		

<b>Enhanced high ambient air temperature radiator cooling (ship loose)</b>			
Ambient design, °C (°F)	50 (122)		
Fan load, kW <sub>m</sub> (HP) – (4 electric motors, 30 hp each)	72 (97)		
Coolant capacity (with radiator), L (US gal)	878 (232)		
Cooling system air flow, m <sup>3</sup> /min (scfm)	2707 (95600)		
Total heat rejection, MJ/min (Btu/min)	113 (107000)	97 (91800)	79 (74700)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	1.69 (0.5)		

<b>Remote radiator cooling<sup>1</sup></b>			
Set coolant capacity, L (US gal)	223 (59)		
Max flow rate at max friction head, jacket water circuit, L/min (US gal/min)	2536 (670)		
Max flow rate at max friction head, aftercooler circuit, L/min (US gal/min)	996 (263)		
Heat rejected, jacket water circuit, MJ/min (Btu/min)	56.8 (53920)	52.3 (49560)	46.6 (44190)
Heat rejected, aftercooler circuit, MJ/min (Btu/min)	43.3 (41040)	36.8 (34935)	25.3 (24000)
Heat rejected, fuel circuit, MJ/min (Btu/min)	2.6 (2500)		
Total heat radiated to room, MJ/min (Btu/min)	14.9 (14195)	14.2 (13530)	
Maximum friction head, jacket water circuit, kPa (psi)	69 (10)		
Maximum friction head, aftercooler circuit, kPa (psi)	48 (7)		
Maximum static head, jacket water circuit, m (ft)	18.3 (60)		
Maximum static head, aftercooler circuit, m (ft)	18.3 (60)		
Maximum jacket water outlet temp, °C (°F)	104 (220)	100 (212)	100 (212)
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient, °C (°F)	49 (120)		
Maximum aftercooler inlet temp, °C (°F)	65 (150)		
Maximum fuel flow, L/hr (US gph)	2225 (590)		
Maximum fuel return line restriction, kPa (in Hg)	33.8 (10)		

<sup>1</sup> For non-standard remote installations contact your local Cummins Power Generation representative.

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## Weights<sup>2</sup>

Unit dry weight kgs (lbs)	17140 (37790)
---------------------------	---------------

<sup>2</sup> Weights represent a set with standard features. See outline drawing for weights of other configurations.

## Derating factors

<b>Standby</b>	Engine power available up to 671 m (2200 ft) at ambient temperatures up to 40 °C (104 °F) and derate at 1.2% at sea level at 50 °C (122 °F). Above these conditions, derate at 5% per 305 m (1000 ft) and 25% per 10 °C (18 °F).
<b>Prime</b>	Engine power available up to 671 m (2200 ft) at ambient temperatures up to 40 °C (104 °F) and derate at 1.2% at sea level at 50 °C (122 °F). Above these conditions, derate at 5% per 305 m (1000 ft) and 25% per 10 °C (18 °F).
<b>Continuous</b>	Engine power available up to 1130 m (3700 ft) at ambient temperatures up to 40 °C (104 °F) and up to 90 m (300 ft) at 50 °C (122 °F). Above these conditions, derate at 5% per 305 m (1000 ft) and 25% per 10 °C (18 °F).

## Ratings definitions

<b>Emergency standby power (ESP):</b>	<b>Limited-time running power (LTP):</b>	<b>Prime power (PRP):</b>	<b>Base load (continuous) power (COP):</b>
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

## Alternator data

<b>Voltage</b>	<b>Connection<sup>1</sup></b>	<b>Temp rise degrees C</b>	<b>Duty<sup>2</sup></b>	<b>Single phase factor<sup>3</sup></b>	<b>Max surge kVA<sup>4</sup></b>	<b>Winding No.</b>	<b>Alternator data sheet</b>	<b>Feature Code</b>
380	Wye, 3-phase	105	C		10049	13	ADS-517	B408-2
380	Wye, 3-phase	125	S		7944	13	ADS-516	B407-2
380	Wye, 3-phase	150	S		7333	13	ADS-515	B814-2
380	Wye, 3-phase	125	P		7944	13	ADS-516	B815-2
380	Wye, 3-phase	80	C		7944	13	ADS-516	B800-2
380	Wye, 3-phase	105	P		10049	13	ADS-517	B840-2
380	Wye, 3-phase	105	C		7333	13	ADS-515	B597-2
440	Wye, 3-phase	150/125/105	S/P/C		8412	12	ADS-516	B813-2
440	Wye, 3-phase	125/80	S/P/C		9719	12	ADS-517	B663-2
440	Wye, 3-phase	105/80	S/P		13024	12	ADS-531	B664-2
440	Wye, 3-phase	80	S		14781	12	ADS-532	B688-2
480	Wye, 3-phase	150	S		7267	12	ADS-515	B816-2
480	Wye, 3-phase	125	P		8412	12	ADS-516	B718-2
480	Wye, 3-phase	125/105/80	S/P/C		8412	12	ADS-516	B801-2
480	Wye, 3-phase	105	S		9719	12	ADS-517	B280-2
480	Wye, 3-phase	80	S		13024	12	ADS-531	B601-2
480	Wye, 3-phase	80	P		13024	12	ADS-531	B694-2
480	Wye, 3-phase	105	C		7267	12	ADS-515	B583-2
600	Wye, 3-phase	150	S		7233	07	ADS-515	B817-2
600	Wye, 3-phase	125	P		8189	07	ADS-516	B720-2
600	Wye, 3-phase	125/105/80	S/P/C		8189	07	ADS-516	B602-2

### Notes:

<sup>1</sup> Single phase power can be taken from three phase generator sets at up to the value listed in the single phase factor column for the generator set nameplate kW rating at unity power factor.

<sup>2</sup> Standby (S), Prime (P) and Continuous ratings (C).

<sup>3</sup> Factor for the *Single Phase Output from Three Phase Alternator* formula listed below.

<sup>4</sup> Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

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**Alternator data (continued)**

Voltage	Connection <sup>1</sup>	Temp rise degrees C	Duty <sup>2</sup>	Single phase factor <sup>3</sup>	Max surge kVA <sup>4</sup>	Winding No.	Alternator data sheet	Feature Code
600	Wye, 3-phase	105	S		9597	07	ADS-517	B839-2
600	Wye, 3-phase	80	S		12426	07	ADS-531	B604-2
600	Wye, 3-phase	80	P		12426	07	ADS-531	B695-2
600	Wye, 3-phase	105	C		7233	07	ADS-515	B582-2
4160	Wye, 3-phase	150/105	S/P/C		6335	51	ADS-518	B606-2
4160	Wye, 3-phase	125	S		6335	51	ADS-518	B818-2
4160	Wye, 3-phase	105/80	P/C		7295	51	ADS-519	B571-2
4160	Wye, 3-phase	105	S		7295	51	ADS-519	B491-2
4160	Wye, 3-phase	80	S		8752	51	ADS-520	B605-2
4160	Wye, 3-phase	80	P		8752	51	ADS-520	B802-2
13.2-13.8k	Wye, 3-phase	125	P		6800	91	ADS-522	B604-2
13.2k	Wye, 3-phase	125/105	S/P		7993	91	ADS-523	B819-2
13.2k	Wye, 3-phase	105	C		6800	91	ADS-522	B805-2
13.2k	Wye, 3-phase	105	S		7993	91	ADS-523	B501-2
13.2k	Wye, 3-phase	80	P		11213	91	ADS-533	B566-2
13.2k	Wye, 3-phase	80	S		13438	91	ADS-534	B807-2
13.2k	Wye, 3-phase	80	C		7993	91	ADS-523	B608-2
13.8k	Wye, 3-phase	125	S		6800	91	ADS-522	B820-2
13.8k	Wye, 3-phase	105	P		7993	91	ADS-523	B821-2
13.8k	Wye, 3-phase	105	C		5948	91	ADS-521	B460-2
13.8k	Wye, 3-phase	80	S		13438	91	ADS-534	B610-2
13.8k	Wye, 3-phase	80	P		11213	91	ADS-533	B809-2
13.8k	Wye, 3-phase	80	C		6800	91	ADS-522	B565-2
12.47k	Wye, 3-phase	125	S		7993	91	ADS-523	B822-2
12.47k	Wye, 3-phase	105	P		11213	91	ADS-533	B823-2
12.47k	Wye, 3-phase	105	S		11213	91	ADS-533	B568-2
12.47k	Wye, 3-phase	80	S		13438	91	ADS-534	B607-2
12.47k	Wye, 3-phase	125	P		6670	87	ADS-522	B811-2
12.47k	Wye, 3-phase	80	P		13438	91	ADS-534	B812-2
12.47k	Wye, 3-phase	105	C		6007	87	ADS-521	B569-2
12.47k	Wye, 3-phase	105	C		7993	91	ADS-523	B570-2

**Notes:**

- <sup>1</sup> Single phase power can be taken from three phase generator sets at up to the value listed in the single phase factor column for the generator set nameplate kW rating at unity power factor.
- <sup>2</sup> Standby (S), Prime (P) and Continuous ratings (C).
- <sup>3</sup> Factor for the *Single Phase Output from Three Phase Alternator* formula listed below.
- <sup>4</sup> Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

**Formulas for calculating full load currents:**

**Three phase output**

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

**Single phase output**

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

**Cummins Power Generation**

1400 73<sup>rd</sup> Avenue N.E.  
 Minneapolis, MN 55432 USA  
 Phone: 763 574 5000  
 Fax: 763 574 5298

**Warning:** Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

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**From:** MICHAEL BROWN  
**To:** [ddd@seatomorrowtoday.com](mailto:ddd@seatomorrowtoday.com);  
**Subject:** Fw: 8320 volt Data  
**Date:** Monday, June 15, 2009 9:41:52 AM  
**Attachments:** [ADS-533b Op Chart.pdf](#)  
[8.32 kV Data Sheet.xls](#)  
[Technical Data for ADS 533.doc](#)  
[ads-533.pdf](#)

---

Place on file under Cummins  
--- On **Mon, 6/15/09, michael.w.rutty@cummins.com**  
<**michael.w.rutty@cummins.com**>  
wrote:

---

From: michael.w.rutty@cummins.com <michael.w.rutty@cummins.com>  
Subject: 8320 volt Data  
To: mbrown06@snet.net  
Cc: gwalter@npeconsultants.com, mary.kay.peck@cummins.com, william.j.collins@cummins.com  
Date: Monday, June 15, 2009, 9:03 AM

Mike,

8320 volt alternator data attached.

The 8320 volt alternator is based on ADS 533 so all data will be the same except that listed on the 8.32 kV Data Sheet attached.

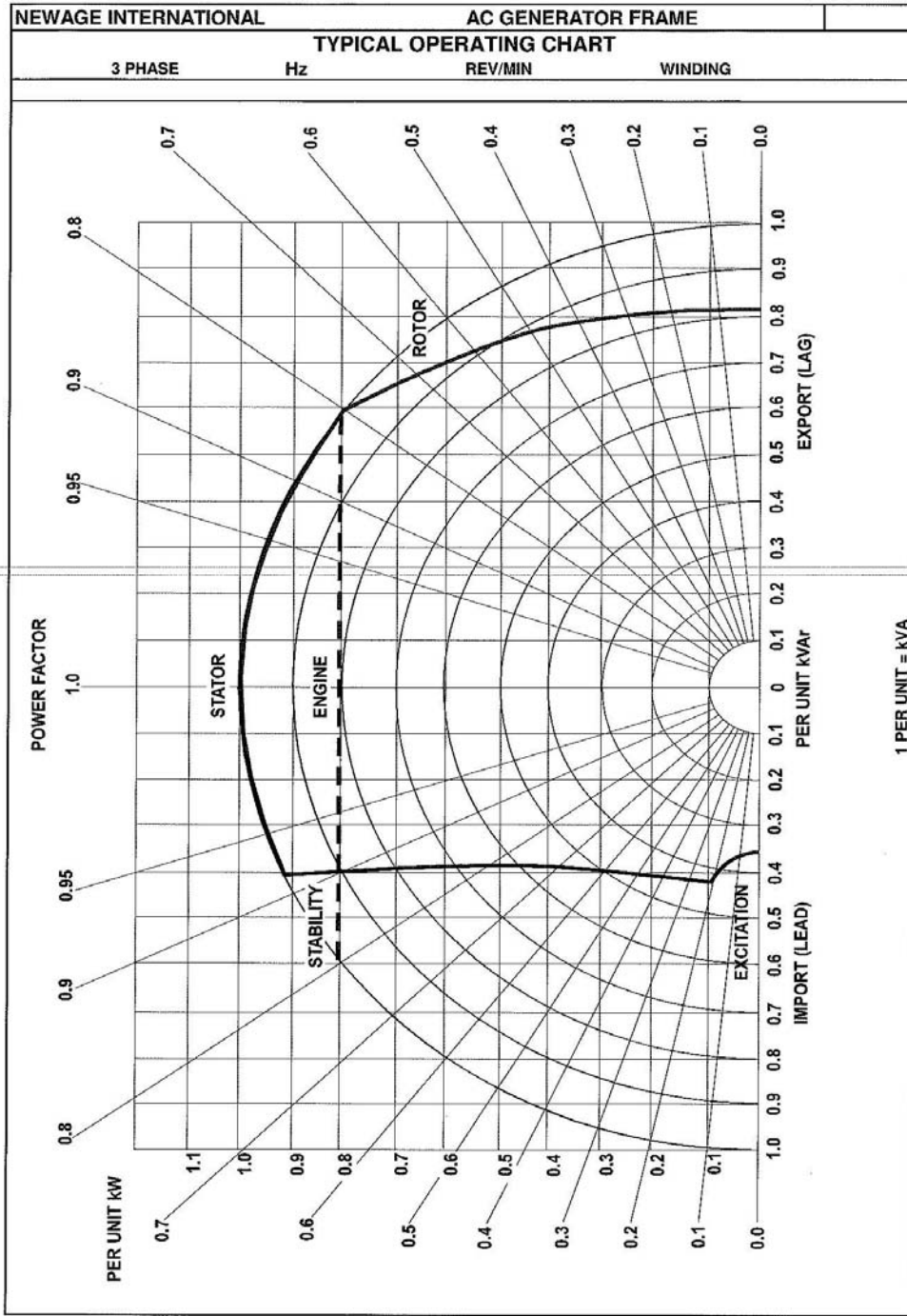
Please let me know if you have any questions.

Thank you,

Michael Rutty  
Sales Engineer  
Cummins Power Systems, LLC  
914 Cromwell Ave  
Rocky Hill, CT 06067  
Direct: 860-721-2240  
Fax: 860-529-7041



13,800 volt



APPLICATION DATA SHEET NUMBER    //NA/5/

ISSUE

DATE

**HVSI804W**

kVA	Volts	Phase	Hz	p.f.	Reactances %								
					Xdu	Xd	X'd	X''d	Xq	X''q	Xl	X <sub>2</sub>	X <sub>0</sub>
3715	8320	3	60	0.8	215	184	15.5	11.4	139	21.6	8	16.6	2.7

**Time Constants (Seconds)**

kVA	Volts	Phase	Hz	p.f.		T'd	T''d	Td <sub>0</sub>	Ta
3715	8320	3	60	0.8		0.225	0.016	5.000	0.070

3715kVA, 8320V, 60Hz	Rated kVA @ 0.8PF (%)	Rated kVA @ 0.9PF (%)	Rated kVA @ UPF (%)
110% of rated KVA	96.2	96.7	97.1
100% of rated KVA	96.2	96.7	97.1
75% of rated KVA	96.1	96.6	97.0
50% of rated KVA	95.5	96.0	96.5
25% of rated KVA	92.7	93.5	94.2

**Transient Performance**

60Hz

Locked Rotor kVA	0	1858	3715	4644	5573	7430
% Voltage Dip @ 0 P.F.	0	10.3	18.6	22.3	25.6	31.4

RNS

## Technical Data for ADS-533 Alternator model #HVS1804W

RATINGS	REFER TO SALES AND SERVICE BRIEFING		
MAXIMUM ALTITUDE	1000 METRES ABOVE SEA LEVEL		
MAXIMUM AMBIENT TEMPERATURE	40° C		
CONTROL SYSTEM SERIES 3	SEPARATELY EXCITED BY P.M.G.		
A.V.R.	FULL WAVE RECTIFIED		
VOLTAGE REGULATION	± 0.5%   WITH 4% ENGINE GOVERNING		
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES OF THIS SECTION		
INSULATION SYSTEM	CLASS F		
PROTECTION	IP23 STANDARD		
RATED POWER FACTOR	0.8		
STATOR WINDING	DOUBLE LAYER LAP		
WINDING PITCH	2/3		
WINDING LEADS	6		
R.F.I. SUPPRESSION	BS EN 50081/2-1/2 VDE 0875G VDE 0875N For other standards apply to the factory		
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 3.0%		
MAXIMUM OVERSPEED	2250 Rev/Min		
BEARING DRIVE END	ISO 8236 C3		
BEARING NON DRIVE END	ISO 8324 C3		
EFFICIENCY	REFER TO EFFICIENCY CURVES OF THIS SECTION		
FREQUENCY	60Hz		
TELEPHONE INTERFERENCE	TIF< 50		
COOLING AIR	4.25 m <sup>3</sup> /sec		
VOLTAGE STAR (Y)	12470	13200	13800
kVA BASE RATING FOR REACTANCE VALUES	3385	3580	3724
X <sub>d</sub> DIRECT AXIS SYNCHRONOUS	2.43	2.30	2.20
X' <sub>d</sub> DIRECT AXIS TRANSIENT	0.191	0.181	0.173
X'' <sub>d</sub> DIRECT AXIS SUB-TRANSIENT	0.141	0.134	0.128
X <sub>q</sub> QUADRATURE AXIS REACTANCE	1.72	1.620	1.55
X'' <sub>q</sub> QUAD. AXIS SUB-TRANSIENT	0.267	0.252	0.241
X <sub>L</sub> LEAKAGE REACTANCE	0.100	0.094	0.090
X <sub>2</sub> NEGATIVE PHASE SEQUENCE	0.205	0.193	0.185
X <sub>0</sub> ZERO PHASE SEQUENCE	0.033	0.031	0.030
REACTANCES ARE SATURATED	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED		
T' <sub>d</sub> TRANSIENT TIME CONSTANT	0.226		
T'' <sub>d</sub> SUB-TRANSIENT TIME CONSTANT	0.016		
T' <sub>do</sub> O.C. FIELD TIME CONSTANT	4.95		
T <sub>a</sub> ARMATURE TIME CONSTANT	0.064		
SHORT CIRCUIT RATIO	1/X <sub>d</sub>		
STATOR WINDING RESISTANCE (L-N)	0.3724		
ROTOR WINDING RESISTANCE	1.470		
EXCITER STATOR FIELD RESISTANCE	17.00		
EXCITER ROTOR RESISTANCE (L-L)	0.082		
PMG STATOR RESISTANCE (L-L)	2.700		
	RESISTANCE VALUES ARE IN OHMS AT 20° C		
NO LOAD EXCITATION VOLTAGE	15.0		
FULL LOAD EXCITATION VOLTAGE	67.0		



**ALTERNATOR DATA SHEET**

**Frame Size HVSI804W**

<b>CHARACTERISTICS</b>		2-bearing weight		
<b>WEIGHTS:</b>		Stator Assembly:	9108 lb	4140 kg
		Rotor Assembly:	5526 lb	2512 kg
		Complete Assembly:	14634 lb	6652 kg
<b>MAXIMUM SPEED:</b>			2250 rpm	
<b>EXCITATION CURRENT:</b>		Full Load	3.94 Amps	
		No Load	0.88 Amps	
<b>INSULATION SYSTEM:</b>		Class F Throughout		
<b>3 Ø RATINGS</b> (0.8 power factor)		<b>60 Hz Voltage</b> (winding no)		
(Based on specific temperature rise at 40°C ambient temperature)			<u>12470</u> (91)	<u>13200</u> (91)
			<u>13800</u> (91)	
138°C Rise Ratings	kW		2968	3144
	kVA		3710	3930
			4110	
125°C Rise Ratings	kW		2864	3032
	kVA		3580	3790
			3960	
105°C Rise Ratings	kW		2692	2848
	kVA		3365	3560
			3724	
80°C Rise Ratings	kW		2344	2480
	kVA		2930	3100
			3240	
<b>REACTANCES</b> (per unit ± 10%)			<u>12470</u> (91)	<u>13200</u> (91)
(Based on full load at 105°C Rise Rating)			<u>13800</u> (91)	
Synchronous			2.435	2.299
Transient			0.191	0.181
Subtransient			0.141	0.134
Negative Sequence			0.205	0.193
Zero Sequence			0.033	0.031
			0.030	
<b>MOTOR STARTING</b>			<u>12470</u> (91)	<u>13200</u> (91)
			<u>13800</u> (91)	
Maximum kVA	(90% Sustained Voltage)		11213	11213
			11213	
<b>TIME CONSTANTS</b> (Sec)			<u>12470</u> (91)	<u>13200</u> (91)
			<u>13800</u> (91)	
Transient			0.226	0.226
Subtransient			0.016	0.016
Open Circuit			4.950	4.950
DC			0.064	0.064
			0.064	
<b>WINDINGS</b> (@20°C)			<u>12470</u> (91)	<u>13200</u> (91)
			<u>13800</u> (91)	
Stator Resistance	(Line to Line, Ohms)		0.7448	0.7448
Rotor Resistance	(Ohms)		1.47	1.47
Number of Leads			6	6
			6	



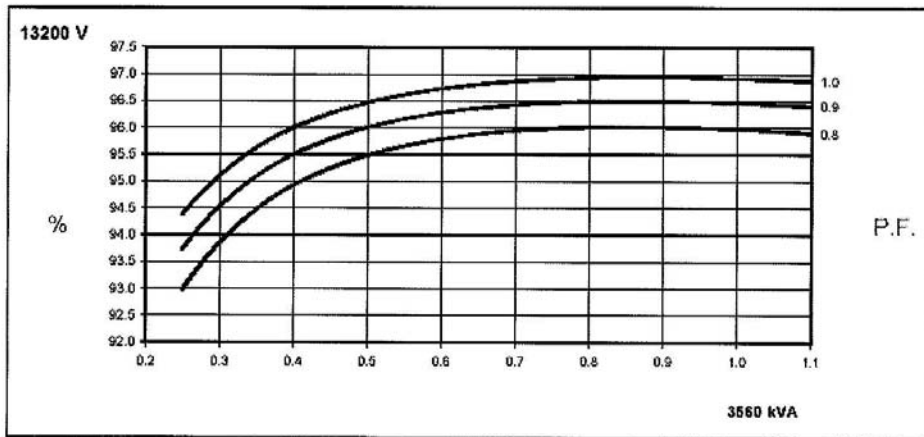
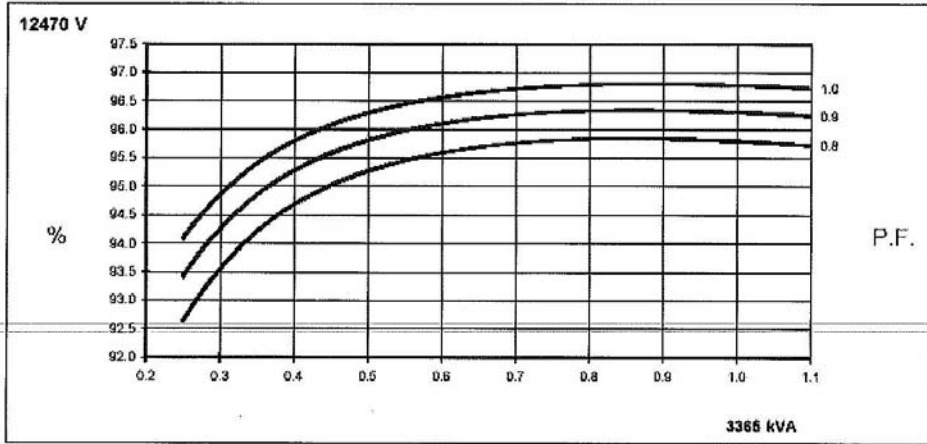
**ALTERNATOR DATA SHEET**

Frame Size **HVSI804W**

Three Phase Efficiency Curve

WDG 91

60Hz



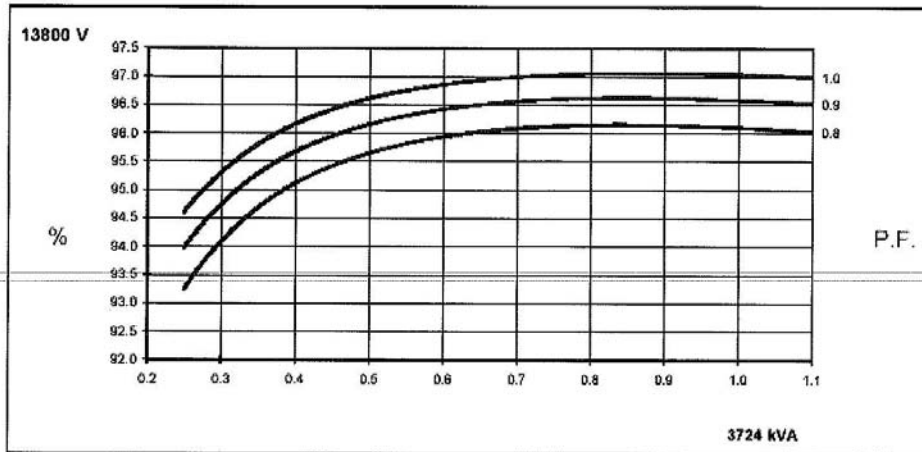


**ALTERNATOR DATA SHEET**  
Three Phase Efficiency Curve

Frame Size **HVSI804W**

WDG 91

60Hz





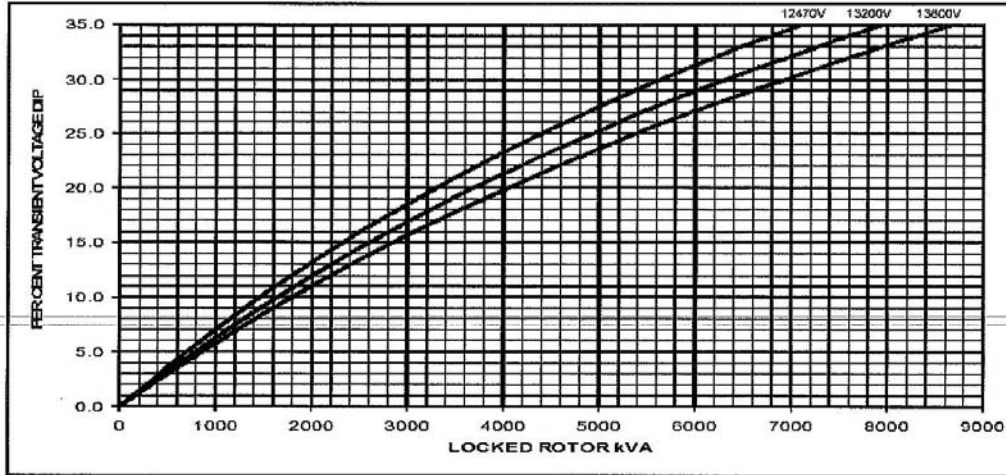
**ALTERNATOR DATA SHEET**

**Frame Size HVS1804W**

**LOCKED ROTOR MOTOR STARTING CURVE**

**WDG 91**

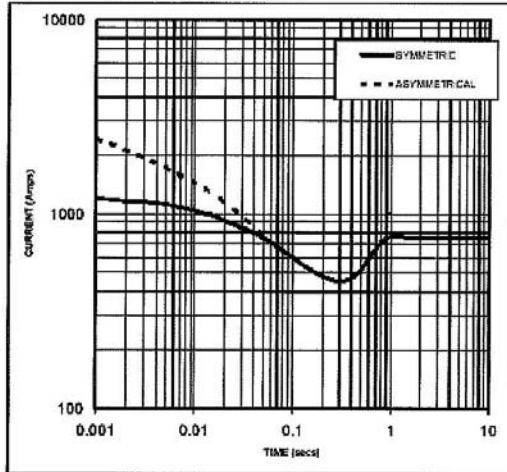
**60Hz**



Three Phase Short Circuit Decrement Curve  
No-Load Excitation at Rated Speed  
Based on series start (wye) connection

WDG91

60Hz



NOTE 1:  
THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO ADJUST THE VALUES FROM CURVES BETWEEN THE 0.01 SECONDS AND THE MINIMUM CURRENT POINT IN RESPECT OF NORMAL OPERATING VOLTAGE:

VOLTAGE	FACTOR
12470V	X 0.98
13200V	X 0.99
13800V	X 1.00

THE SUSTAINED CURRENT VALUE IS CONSTANT, IRRESPECTIVE OF VOLTAGE LEVEL.

NOTE 2:  
THE FOLLOWING MULTIPLICATION FACTORS SHOULD BE USED TO CONVERT THE VALUES CALCULATED IN ACCORDANCE WITH NOTE 1 TO THOSE APPLICABLE TO THE VARIOUS TYPES OF SHORT CIRCUIT:

	3 PHASE	2 PHASE L-L	1 PHASE L-N
PERMANENT	X 1.0	X 0.87	X 1.30
INTERM.	X 1.0	X 1.00	X 2.20
INSTANT.	X 1.0	X 1.00	X 2.00
MAX. SUSTAINED DURATION	10 SEC	5 SEC	2 SEC

ALL OTHER TYPES ARE UNSPECIFIED

SUSTAINED SHORT CIRCUIT - 748 Amps

<b>ABB</b> DISTRIBUTION TRANSFORMER		CLASS ONAN 60 HERTZ		TANK MUST BE SOLIDLY GROUND
MADE IN U.S.A. AT JEFFERSON CITY, MO. 111		THREE PHASE		
225.0	CONT. RISE 65°C	99J999999	SITE V84E5175K9	
8320				
480Y/277	HY AL 95	WFG DATE MM-YY	152	
	LY AL 30	IMPEDANCE 4 / 7.5	WT LBS 310	

TAP	VOLTAGE
1	8735
2	8530
3	8320
4	8110
5	7905

PHASE DIAGRAM

CONTAINS MINERAL OIL WITH NO DETECTABLE LEVEL OF PCB, LESS THAN 1PPM, AT THE TIME OF MANUFACTURE.





Exhibit C-4

<b>ABB</b> DISTRIBUTION TRANSFORMER		CLASS ONAN 60 HERTZ		TANK MUST BE SOLIDLY GROUND
MADE IN U.S.A. AT JEFFERSON CITY, MO.		TYPE 11UJ THREE PHASE		
225.0	CONT. RISE 65°C	99J999999	SITING V5EE5175K8	
13800				
480Y/277		HY AL 95	WFO DATE MM-YY 15	1
LV AL 30		IMPEDANCE 4.25		WT LBS 3079

TAP	VOLTAGE
1	14490
2	14145
3	13800
4	13455
5	13110

CAUTION: BEFORE OPERATING READ INSTRUCTION BOOK 48-3840-1 AT WWW.ABBTD.COM

CONTAINS MINERAL OIL WITH NO DETECTABLE LEVEL OF PCB, LESS THAN 1PPM, AT THE TIME OF MANUFACTURE.

**Exhibit D.**

**Generation System Protection Device**

Amp Sentry	
25	Synchronous Check Relay
27	Under Voltage Relay
32	Directional Power Relay
40	Field Relay
47	Phase-Sequence Voltage Relay
51	AC Time Overcurrent Relay
59	Over Voltage Relay
81	Frequency Relay
SEL 300G	
17	Shunting or Discharge Switch
24	Volts/Hertz Relay
25	Synchronous Check Relay
27	Under Voltage Relay
32	Directional Power Relay
46	Reverse-Phase, Phase Balance, Current Relay
51C	AC Time Overcurrent Current Relay
51N	AC Time Overcurrent Neutral Relay
59	Over Voltage Relay
81	Frequency Relay
87	Differential Protective Relay

87N	Differential Protective Neutral Relay
Other	
86	Lockout Relay

## Exhibit E

### System Upgrades

The following is a list of major equipment that is installed by CMEEC during the construction of the generation site and will have ownership turned over to the Fisher's Island Electric Company upon acceptance:

1. New generator interconnection riser pole and associated electrical apparatus.
2. New generator interconnection duct bank/conduit and cable system with terminations from Generator HVL /cc to Generator interconnection riser pole.
3. New generator station service conduit and cable system with terminations from the generator HVL/cc to the generator station service transformer.
4. New 225KVA, three phase, 8320V/480V station service pad mounted transformer.

The following is a list of work and costs that CMEEC and Groton Utilities (GU) have agreed to accomplish regarding system protection modifications to the reclosing schemes for the 18-2-2 breaker for Fishers Island at the Groton Long Point Substation and the metering issues related to the installation of the Fisher's Island 50 in 5 generator:

1. The existing Fisher's Island Breaker 18-2-2 (1967 vintage Allis Chalmers breaker) is too obsolete to warrant any modifications.
2. GU will replace the existing 1967 Allis Chalmers breaker with an in stock spare Westinghouse 1200Amp 15KV breaker.
3. CMEEC will contract with Consulting Engineering Group (CEG) to provide engineering services at no cost to GU to modify an existing spare Westinghouse 1200Amp 15KV breaker with a new SEL 751A protection package. As part of the CEG engineering services contract, CEG will provide GU an updated protection package setting and associated programming for the following ANSI devices: 25 sync check, 50/51 phase overcurrent, 50/51 neutral overcurrent, 79 reclose with sync check blocking, 27 undervoltage, 59 overvoltage, 81O/U frequency that meets the protection needs of the new generator installed at Fishers Island.
4. CMEEC will purchase a new SEL 751A feeder protection relay package and associated material for this project at no cost to GU.
5. CMEEC will purchase a new Nexus1262, three phase, four quadrant meter with POTs modem for the project at no cost to GU.
6. GU would provide labor to remove at no cost to CMEEC the existing 18-2-2 breaker, perform normal maintenance (Clean, lube, test, paint etc.) and move and install the spare Westinghouse breaker.
7. GU will replace at no cost to CMEEC the existing revenue meter for Fishers Island and install the new Nexus meter (existing metering PT's, CT's, meter socket adapter, phone line etc. are adequate and do not need to be replaced).
8. GU will replace at no cost to CMEEC the existing line side PT's due to age and weathered/rusty condition. GU will replace with an unused set of 40/1 PT's located at Trails Corner Sub 11 that could be moved when we move the breaker.
9. Upon acceptance by GU, the above breaker, protection and metering modifications and associated equipment will become the property of Groton Utilities.

## **Exhibit F**

### **Metering**

#### **Generation Metering:**

This section's purpose is to inform all parties of the arrangement and operation of the metering system for the "50 in 5" generating assets. For each generator, there will be two meters installed. There will be a Station Service Meter (Landis & Gyr form 16S class 320) and a Revenue Meter (Nexus model 1262).

The Station Service Meter (Landis & Gyr form 16S class 320) is physically located inside the generator compartment. It is electrically located between the station service transformer and the subject engine's 480V distribution panel. The Station Service Meter is plugged into a Milbank (model U5797-O-400-CB) panel which also contains a breaker upstream of the Station Service Meter to facilitate the performance of maintenance on the meter. The Station Service Meter has a KYZ output. Only half of the KY pulse is sent to the data bucket in the Revenue Meter. That data stream is interrupted by the opening of a "b" contact whenever the 52G generator breaker is shut. As a result, the display on the Revenue Meter will be programmed to show the power consumed for station service loads when the generator is not operating.

The Revenue Meter (Nexus model 1262 with a telephone modem installed under the meter glass) is physically located outside the generator compartment and serves as the meter read by the host utility meter reader. It is plugged into a Milbank (model UC7444-O-141-NOE) panel. The Revenue Meter has PT's and CT's and is electrically located between the 52G generator breaker and the generator terminals.

The Revenue Meter's display function is two-fold. It is programmed not only to display the total KWh consumed by the asset and its support systems (from service power), but also to display the generating asset's KWh output to the service grid.

## **Groton Utilities Metering**

At Groton Long Point (GLP) Substation a new Revenue Meter (Nexus model 1262 with a telephone modem installed under the glass) will be installed on the load side of the 18-2-2 breaker. Breaker 18-2-2 is a feeder breaker that supplies power to the two (2) Fisher's Island underwater cables. The GLP revenue meter will be provide metering for power supplied or generated from Fisher's Island.

## **Fisher's Island Electric Products Purchases Metering Demarcation:**

This interconnection agreement does not change the existing Fisher's Island Electric Product Purchase Agreement between GU and Fishers' Island Electric Company. GU will continue to agree and Fisher's Island Electric Company will continue to agree to purchase electricity under the existing special contract. However, as a result of the installation of the CMEEC's 50 in 5 generator located on Fisher's Island and since the 50 in 5 Fisher' Island generator can generate more electricity than is consumed on Fisher's Island, the point of metering demarcation in the existing Electric Products Purchase Agreement will need to be changed to include the overall hourly metering at both GLP 18-2-2 revenue meter and the CMEEC 50-5 Fisher's Island revenue meter. Based on these new points of demarcation, GU will continue to bill Fisher's Island Electric Company in accordance with the existing Electric Products Purchase Agreement.

**EXHIBIT G - JOINT OPERATING PROCEDURES**

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## **1.0 Introduction**

With the deployment of Connecticut Municipal Electric Energy Cooperative (CMEEEC) “50 in 5” diesel generators in the distribution system of the member companies, it is necessary to outline the protocols that will need to be employed by all participants, and in this instance by CMEEEC, Groton Utilities and Fishers Island Electric Corporation (“FIEC”) to ensure the safe and reliable operation of the assets CMEEEC generator and related assets on Fishers Island.

### **1.1 Objective**

The objective of this procedure is to consolidate in one documents the operating procedures and protocols regarding the actions, resources, studies, and data flow used to deploy the “50 in 5” assets on Fishers Island. The procedure will also provide compensation guidance on land leases as well as support services from FIEC. This procedure will outline jurisdictional boundaries associated with the assets.

### **1.2 Applicability**

This procedure is applicable to the following entities:

- CMEEEC
- Fishers Island Electric Corporation

### **• 1.3 References**

The references listed below represent some of the primary source documents used to establish the Joint Operating Agreement.

- Fishers Island Ground Lease

### **1.4 Assets**

The following assets will operate behind the meter (within the distribution system). Dispatch of the assets will be at the direction of the Power Supply Group at CMEEEC.

- Fishers Island (Fishers Island, NY)- CMEEC generator and related systems

## **2.0 Division of Responsibility**

At all sites the FIEC is responsible for the high voltage interconnection, including the installation of cable. The one-line diagram provided in connection with the Interconnection Agreement, Exhibit A, outlines the point of jurisdiction demarcation as well as the assets that will be turned over to the FIEC.

## **3.0 Integrated Tagging Authority**

CMEEC will establish an Integrated Tagging Authority prior to the arrival of the generating units at the FIEC site. This will govern the procedures for isolating all energy sources for personnel protection. CMEEC will train FIEC personnel on the proper use of these procedures and processes and will provide a lock out/tag out kit and switching and tagging tags to FIEC.

1. CMEEC will tag out all electrical breakers on the system, fuses, station transformers and the related transformer disconnects.
2. Test personnel are required to hang their tags over CMEEC's tags before commencing work.
3. The Network Operations Center ("NOC"), located in Norwich Connecticut and which will serve as the central location for the supervisory control and data acquisition ("SCADA") system interface equipment for the diesel generator that will be the control room that will coordinate and monitor the diesel generator and its ancillary systems as well as being responsible for coordinating the control tags for switching and lock out/tag out.
4. System energization which is defined as the initial energization of the following: high voltage switchgear breaker; the HVLCC switch station service transformer; 480 volt power panel; and 120 volt power panel will be controlled by CMEEC in accordance with its high voltage procedures. High voltage systems from the generator breaker or station service transformer to the point of interconnection with the distribution system will be controlled by the FIEC and CMEEC in accordance with distribution switching and tagging rules. All other energy sources shall be tagged in accordance with CMEEC lock out/tag out procedures. As individuals move to clear red tags for the purpose of startup of certain systems, they are expected to manage the safe operation of those systems by using CMEEC's blue tags.

## **4.0 High Voltage Construction**

CMEEC will contract with the FIEC for the installation of high voltage cables. This includes installation of electrical apparatus on the existing pole, cables and fuse disconnects. The FIEC will prepare a cost estimate for the material and labor costs involved in the installation of the high voltage portion of the system. This includes 13,800 to 8,320 V transformers, where applicable. The FIEC will also install the 8320 volt cables and terminate the station service transformer. All high voltage equipment will be tested by Southern New England Electrical Testing (SNEET) or similar contractor.

Matrix (construction contractor) is responsible for the installation of the station service transformer vault and its transformer. During this period, the FIEC will be required to lift and tag, in consultation with CMEEC, the permanently installed 240 volt AC cable from the station transformer. Then, 120 volt AC power will be back fed into the 120/240 distribution panel from a portable generator. The lifted cable is to be recorded using a Bypass Jumper tag to identify both the lifted lead and the temporary power. The demarcation point for FIEC control will be the output breaker of the generator and the input to the station service transformer.

## **5.0 I.3.9 Filing**

CMEEC shall be responsible for filing, with the assistance of FIEC, of the I.3.9. filing at ISO-NE.

## **6.0 Turnover of High Voltage System to the Utility**

CMEEC will assign a project manager to coordinate, facilitate and oversee the installation and startup of the FIEC unit. The turnover of the high voltage system will occur after CMEEC reviews and accepts, in writing, the test report on the high voltage cables in accordance with the demarcation specified in Exhibit A. CMEEC will formally turn over to the utility the installed cable and transformers and make the appropriate payment once invoiced for work completed.

## **7.0 System Communications**

CMEEC will develop a mutually agreeable communication system with FIEC that utilizes, to the greatest extent and consistent with CMEEC's cyber security requirements, the ADSL modem service. CMEEC will also attempt to establish a redundant system via the Motorola canopy technology.

## **8.0 Full Connection Study – Interconnection**

CMEEC is responsible for providing the FIEC with interface data pertaining to the generator set's alternator design, for use in the FIEC's interconnection model. In addition, CMEEC will provide the FIEC with a listing of the protective relay settings; both within the Cummins Control System (Cummins Gen Set) and the Sweitzer

(protective) relay package. The FIEC is responsible to ensure the reliability of the interconnection with its electrical distribution system. Square D, under contract to Cummins, will test the alternator, high voltage breaker, and Sweitzer relay. CMEEC will make available to the FIEC test results, the basis for the protective relay settings, meter design, and cable interconnection schedules.

## **9.0 Operating Constraints**

The FIEC shall notify CMEEC as soon as possible of any of its system operations might interfere with the operation of the diesel generator and its auxiliary systems.

### **9.1 Breaker Re-Closure**

The FIEC breaker re-closure is located at the Groton Utilities Groton Long Point substation, breaker 18-2-2. The operations and maintenance of breaker 18-2-2 is the responsibility of Groton Utilities. CMEEC and Groton Utilities have agreed to update the existing breaker and control system to eliminate any breaker reclosure issues.

### **10.0 FIEC changes to the distribution system that could affect a Generator Set**

The FIEC is responsible to identify, as early as possible during the conceptual design phase, proposed changes to the distribution system that could have an impact on the operation and the protective systems that support a generator set.

### **11.0 Operating in “Island Mode”**

FIEC and CMEEC are responsible to develop and train personnel on the operation of the generating assets in “Island Mode.” This effort will include the development of the required procedures and the communication protocols necessary to communicate with those line personnel who will be responsible for switching, tagging and electric system line-up to allow for Island Mode operation. CMEEC will continue to be responsible for ordering both fuel and urea and any other consumables. The FIEC will use all reasonable efforts to facilitate and coordinate the delivery of fuel, urea, and any other consumables when in Island Mode. The Fishers Island generator has the capacity of approximately 36-48 hours of operation when in Island Mode.

Island Mode operation is warranted at any time that electric power to Fisher’s Island has been interrupted through 1) the underwater transmission line 2) Groton Utilities distribution system and/or 3) the New England electric grid. In such case, CMEEC or FIEC, whichever first identifies the loss of electric power, will immediately notify the other party for purposes of coordinating the start-up of the Facility. If power to the Fishers Island grid is lost, FIEC will take local control of the unit, using CMEEC-

approved procedures, start the unit and sequentially load the Fishers Island grid. Communications with CMEEC will be maintained to the extent possible during all operations under emergency conditions.

Payment for the cost of operation of the unit during Island Mode will be passed through to FIEC in accordance with the Groton Utility tariff and FIEC tariff approved by the New York State Public Service Commission via the purchase power adjustment line item of the Groton Utility electric bill to FIEC. CMEEC will work with GU to insure that FIEC is not charged for both the cost of operating the Facility in Island Mode as well as a per kilowatt hour energy charge. CMEEC will maintain and provide to FIEC, as soon as practicable, documentation to support the cost of such operation during regular operations as well as in Island Mode.

The cost of operation of the unit during Island Mode shall include the following costs: urea and diesel fuel based on actual usage as measured by fuel and urea metering, as well as associated delivery costs and the incremental increase in labor costs above the normal eight hour day incurred by CMEEC for monitoring the unit twenty four hours per day while the unit is in Island Mode. If the unit is operated for more than seventy-two (72) continuous hours in Island Mode and the maintenance threshold of 500 hours of operation is met, FIEC shall also be responsible for its pro rata share of the maintenance costs of the unit based on the number of hours of operation of the unit in Island Mode.

For use in extreme emergencies, CMEEC maintains an emergency supply of diesel fuel at the Wallingford Electric Department. Approximate normal consumption rates based on full generator load are: urea-60 liters/hour, fuel-170 gallons/hour.

The FIEC will observe good engineering and site practices regarding the unit during the Island Mode of Operation. This will entail oversight such as routine site safety and security, reporting and providing first response to any unusual observation such as fire, extreme noise or vibrations from the unit, extreme weather conditions that might preclude safe operation of the unit, etc. The FIEC will provide access and normal courtesies to vendors or CMEEC personnel working on or around the unit. The cost of such assistance will be borne by the FIEC. The FIEC will bear the cost of its employees to participate in training activities.

## **12.0 Fueling & Urea Delivery**

The NOC will have indication of both fuel and urea inventory at all times. The NOC will aggregate fuel and urea requirements by municipality/region. Criteria for ordering fuel and urea are calculated by regional need as well as aggregate inventory at any given site aggregating and shall take into account the logistics of delivering fuel and other consumables via ferry service. The NOC will coordinate with FIEC and the Fishers Island Ferry District their ability to support fuel and urea delivery as well as with a local

ultra low sulfur diesel fuel oil supplier and then issue a work order to the supply vendor directing them to deliver. The work order will list the contact information on site and the pre-notification requirements (30 minutes prior to arrival to the site). At sites with truck containment barriers, the FIEC is responsible to have a representative present at the time of fueling to ensure that the integrity of the barrier is maintained throughout the urea and fuel delivery process.

### **13.0 Environmental Health & Safety**

CMEEC is responsible to maintain current the Material Safety Data Sheet (MSDS) postings within the unit enclosure. CMEEC will also post the Spill Prevention Control and Countermeasure (SPCC) plan and maintain a spill kit at each site. In the event of a spill, the FIEC must immediately notify the NOC. NOC will then invoke operating procedure entitled “Spill Event”. The FIEC utility first responder will serve as first responder to the site and enact the spill prevention plan as posted in the enclosure. In the event of a failed emission control system (selective catalytic reduction (SCR)), NOC will secure the respective diesel engine and notify the appropriate state authorities as well as the FIEC. CMEEC is responsible to develop a storm water runoff plan and ensure that the conditions of the design basis are maintained. Any major change to the site configuration relative to the storm water runoff should be managed by an engineering design review process.

### **14.0 Metering**

Metering will be designed so that when the Facility is supplying power, revenue meters will differentiate between power going to Fishers Island loads and power going to Groton Utilities. The FIEC will be billed only for the power purchased by FIEC.

### **15.0 NOC Operations**

During normal working hours, CMEEC is responsible for manning the NOC. Off hours, weekends, and holidays, the NOC will be transferred to Norwich Public Utilities’ (“NPU”) control room. The operating procedures will be drafted by NPU and CMEEC jointly. The implementing signatories on each procedure will reflect those host utilities impacted by the content of the document. In addition, NOC will establish three-way communications with FIEC control areas. Actions directing control area functions, such as tagging, maintenance, and fueling must be communicated in writing and followed up verbally.

Alarm conditions will be communicated to the FIEC for the purposes of dispatching the utility first responder. The FIEC utility first responder is expected to communicate with

the NOC concerning any pre-alarm condition, reporting after the fact to their respective control areas. Should a failure occur, the CMEEC Chief Technical Officer and/or the Deputy General Manager NPU can order an event analysis in accordance with Operations Procedures. It is important in any related event that the historical data associated with respective event be well preserved. The FIEC first responder should be de-briefed by the respective control area that data forwarded to the CMEEC Chief Technical Officer.

CMEEC is responsible to maintain current the controlled copies of each operating procedure.

#### **16.0 Financial Reimbursement Procedure**

FIEC will be reimbursed by the following criteria.

- Pre-approved material and labor costs for construction.

#### **17.0 Right to Disconnect – FIEC**

Each FIEC reserves the right to order the disconnect of a generating asset in any condition deemed to be dangerous to the FIEC or personnel.

#### **18.0 Training**

CMEEC will establish a structured training and qualification program for FIEC to certify operating personnel, utility first responders], and advanced diesel operators. In addition, the manufacturer of the diesel generator and emissions control equipment will perform training for the FIEC personnel in the safe and correct operations of the diesel generator. Such training will be provided during construction and FIEC personnel must be made available during this timeframe. Any additional training will be provided on request.

#### **19.0 Security**

CMEEC is responsible for providing security requirements for the respective sites. This will include controlling access and maintenance of security cameras. Upon notification of unauthorized access to a generating units, NOC will request FIEC to dispatch a utility first responder and, if necessary, the local police.