FINAL REPORT

Fort Belvoir Energy Security Microgrid

ESTCP Project EW-201600

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FINAL REPORT
Project: EW-201600

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (Continued)

Page

LIST OF FIGURES

Page

LIST OF TABLES

Page

ACRONYMS AND ABBREVIATIONS

AP	Assessment Procedure
ACAS	Assured Compliance Assessment Solution
ATO	Authority to Operate
ATS	Automatic Transfer Switch
BIOS	Basic Input/Output System
CAT	Caterpillar
CCB	Configuration Control Board
CRN	Closed Restricted Network
DE	Dominion Energy
DER	Distributed Energy Resource
DOD	Department of Defense
DOE	Department of Energy
eMASS	Enterprise Mission Assurance Support Service
EN BN	Engineering Battalion
ESTCP	Environmental Security Technology Certification Program
FAT	Factory Acceptance Test
HMI	Human Machine Interface
IPC	Intelligent Power Controller
IPERC	Intelligent Power and Energy Research Corporation
ISSM	Information System Security Manager
MOU	Memo of Understanding
NEC	Network Enterprise Center
NIC	Network Interface Controller
NVESD	Night Vision and Electronic Sensors Directorate
PLC	Programmable Logic Controller
PPS	Ports, Protocols, and Services
ROI	Return on Investment
RMF	Risk Management Framework
RTAC	Real-Time Automation Controller
SAT	Site Acceptance Test
SCAP	Security Content Automation Protocol
SDN	Software Defined Network

SEL	Schweitzer Engineering Laboratories
SOP	Standard Operating Procedure
SRG	Security Requirements Guide
SSP	System Security Plan
SPIDERS	Smart Power Infrastructure Demonstration for Energy Reliability and Security
STIG	Security Technical Implementation Guide

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ABSTRACT

INTRODUCTION AND OBJECTIVES

The objective of the Ft. Belvoir Energy Security Microgrid project was to demonstrate the ability to construct a cyber-secure microgrid at a military facility using existing infrastructure. The project utilized existing building generators, temporary mobile generators, and existing electrical infrastructure. The purpose of the project was to prove that a microgrid constructed in this manner can provide cost effective energy resiliency to mission critical facilities and overall cost savings to the base. The microgrid needed to be designed and constructed to support the electrical load during typical workdays while islanded from the local utility. This would prove that the microgrid would still allow the military to support projects and missions during an extended utility outage. The project culminated in a 72-hour demonstration to showcase the microgrid's ability to island from utility power, black start after a utility outage, support dynamic electrical loads during typical operation at the facility, and return to grid-tied utility power. This report showcases the findings during design and construction as well as operational data captured during microgrid testing and the final 72-hour demonstration.

TECHNOLOGY DESCRIPTION

The project required a cyber-secure, utility grade microgrid controller to monitor and control distributed generation and electrical equipment. The IPERC GridMaster® Microgrid Control System was used to fulfill this requirement and help capture data from the testing. This report details how the GridMaster® met cybersecurity requirements and how it was implemented on electrical and communications infrastructure. The microgrid design required retrofitting and upgrading existing electrical and communication infrastructure to server as the backbone of the microgrid. New electrical equipment was installed in non-traditional applications to support the microgrid.

PERFORMANCE AND COST ASSESSMENT

The project cost constraints required that the microgrid be constructed primarily from existing infrastructure. The mobile and existing fixed building generation demonstrated the ability to provide cost effective power generation. Aside from capital investment cost, the project demonstrated that cost savings can captured for the military facility both by reducing overall energy costs but also reducing the cost that extended utility outages have on tenant missions and projects.

IMPLEMENTATION ISSUES

Lessons learned from the project were documented to allow the Department of Defense (DoD) to replicate this project in the future at other military facilities. As a result, challenges during the implementation of the microgrid were documented. Additionally, the specific qualities that make a facility a good candidate for this type of microgrid, for example ease of implementation and cost effectiveness, were documented.

PUBLICATIONS

1. S&C Case Study. Published Date: November 9, 2020.
   Title: Mission-Critical Military Base Enhances Power Resiliency with S&C's Microgrid Control System. Author: S&C Electric Company. Published To: sandc.com
   This publication also ran on microgridknowledge.com: https://microgridknowledge.com/sc-electric-microgrid-control-ft-belvoir/INTRODUCTION

EXECUTIVE SUMMARY

INTRODUCTION

The Energy Security Microgrid project at Area 300 on Fort Belvoir demonstrates how existing distributed and mobile generation, electrical infrastructure upgrades, and a cyber-secure microgrid controller can be deployed to provide energy resiliency and cost savings. The project proved that existing building backup generation assets could be paralleled with mobile temporary generation to meet electrical load demands for mission critical facilities. This showed that microgrids constructed in this manner can help military facilities capture cost savings by avoiding the negative impact that extended utility outages have on projects and missions.

To construct the microgrid, existing fixed building generation assets, normally operated in isolation from each other, were upgraded with modern controls. New electrical switching equipment was installed on the overhead 34.5 kV distribution system to allow the fixed generation to parallel with mobile temporary generators to serve as the backbone of the microgrid. Automated and sophisticated microgrid controls delivered by the GridMaster® Microgrid Control System were configured and installed to enable the microgrid to control, form, and sustain the electrical load during extended utility outages.

The successful demonstration of fixed and mobile generation proved the concept and will allow the Department of Defense (DoD) to pursue similar microgrid projects. Taking this same approach, mobile generation can be deployed on an as-needed basis to provide reliable and cyber-secure energy production. This report details findings from the demonstration and future considerations for pursuing similar microgrid projects at other military facilities.

Objective of the Demonstration

The objective of this demonstration was to simulate a utility power outage on a portion of Ft. Belvoir and recover from the outage with a temporary microgrid to carry base load. Successful completion will illustrate emerging potentials of a cybersecure microgrid control system capable of providing energy security, cost savings and cybersecure communications using existing and available on-site assets. In particular, the technical objectives of this project include the following inherent microgrid capabilities:

PERFORMANCE OBJECTIVES

The identified performance objectives enabled measurement of the consistent and predictable behavior of the microgrid. They evaluated both operational and functional capabilities of the designed microgrid. Success in these objectives illustrated the capabilities of the microgrid controller and the demonstrated approach to installing microgrids. The specific performance objectives are included in Section 3.1.

"Table 1" Summary of Performance Objectives

Investigators collected data before and during system operation to evaluate the technical objectives of the project. Sections 5.0 and 6.0 of the report include details on the methods for collecting and analyzing the data needed to assess the performance objectives.

Table ES1. Performance Objectives

Performance Objectives	Metric	Data Requirements	Success Criteria	Results
Quantitative Performance Objectives				
Black Start Capability	Energize load connected to system from cold start.	After the grid has been established from a cold start, measure voltage, frequency, and power.	Loads are energized from a cold start under 5 minutes and the voltage, frequency, and power measurements are within the operational tolerances of a traditional utility system.	Successful microgrid energization from black start. Voltage, frequency, and power measurements are depicted in section 6.1.
Demonstrate a design that incorporates existing building generation assets with mobile generators	Parallel at least one existing building generator with mobile generation to form the microgrid.	Verify the existing building generator has paralleled with the mobile generators. Measure and record generation variations of the existing generators	At least one existing building generator is paralleled with the mobile generators.	Both building generators were paralleled with the mobile generators after island black start. See section 6.2
Power Reliability	Comparison between fixed backup generators and mobile-supported microgrid	Mobile and fixed generator reliability numbers	Microgrid with mobile generation increases reliability	Successful – 10 additional buildings powered with microgrid vs. existing 1 for 1 backup generator to building setup. See Section 6.3
Qualitative Performance Objectives				
Demonstrate SOP and checklists for a broad application	System operational capabilities	Electrical design analysis, microgrid performance data	Time-saving SOPs & checklists developed to assist military installation in evaluating microgrid capabilities	Successful – SOPs enabled quick site assessment for rapid project restarts between demonstrations. See microgrid site assessment checklist (Appendix B)
Cybersecure Microgrid	Microgrid cyber enclave(s) established at acceptable level of risk	RMF Security Plan, SOPs, policies, security checklists, and artifacts to NVESD	NVESD accepts and approves of documentation and self-assessment test results.	Successful - Full RMF package delivered, with low residual risk See NVESD Security Activation Plan (Appendix C)
Cybersecurity methods for nonfixed microgrids	Integration of nonfixed microgrid security mitigations into standard CS authorization requirements	De-activation and reactivation requirements and documentation, cybersecurity authorization process integration	Approved activation & reactivation processes. Methods included in system documentation to NVESD	Successful - Cybersecurity activation / deactivation procedures delivered for intermittent DERs See NVESD Security Activation Plan (Appendix C)

TECHNOLOGY DESCRIPTION

Technology Overview

The primary technology used for the demonstration was the IPERC GridMaster® Microgrid Control System. The GridMaster® automatically balances distributed energy resources with electrical demand in real time to ensure critical loads are satisfied at all times. The system's unique distributed architecture ensures mission-critical continuity of operations and eliminates the single point of failure common in traditional programmable logic controller (PLC) or master-slave control architectures.

The GridMaster® Microgrid Control System consists of distributed Intelligent Power Controllers (IPCs) which are single-board computers connected to generation, loads, and power switching equipment. The IPCs are networked together such that each node represents a specific piece or group of equipment connected to the microgrid. All IPCs are in constant peer-to-peer communication with each other in a distributed architecture and provide intelligent load balancing and prioritized microgrid operations. Each IPC can provide supervisory control over the entire grid, thus even if a single controller fails, the remaining available controllers automatically adjust and a new IPC acts as the supervisory controller.

Figure 1 (below) shows the conceptual one-line of the system. Here an IPC is associated with each generator. One or more of these IPCs would additionally communicate with the network controlling the switchgear that isolates the microgrid from the utility and are also able to remove non-critical buildings from the microgrid circuit.

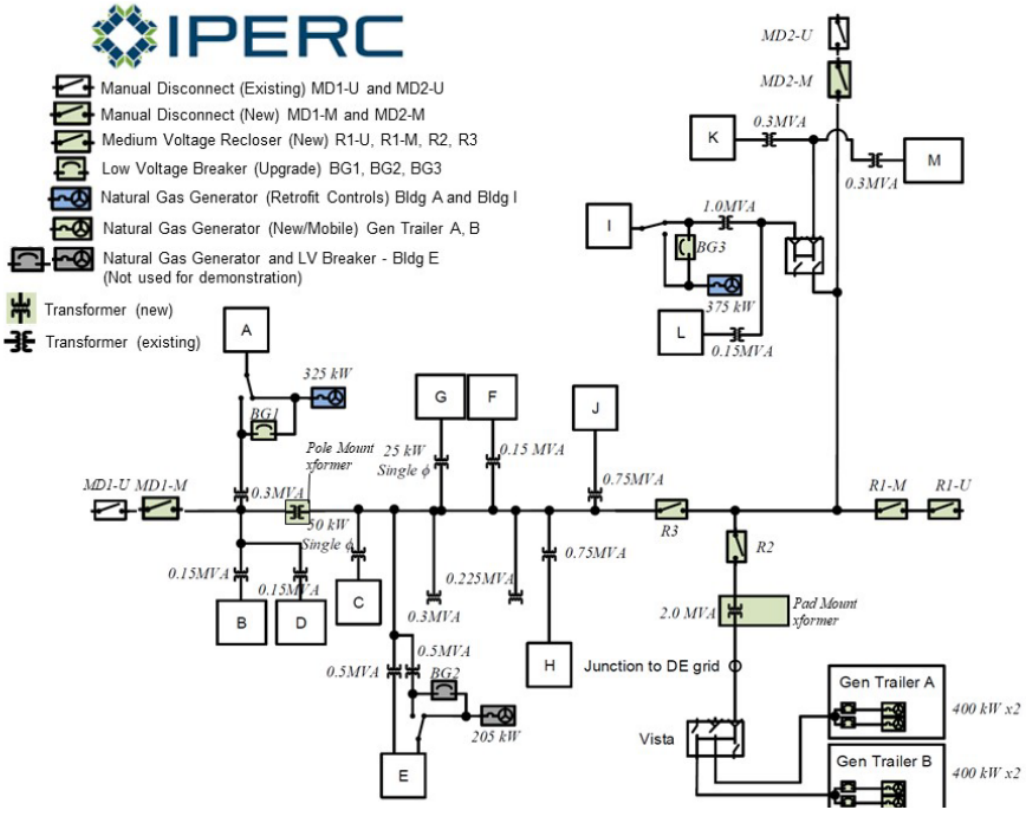

Figure ES-1. Electrical One-line Diagram

Communication Network Cybersecurity and Approvals

IPERC and NVESD worked together to connect microgrid communications equipment into the existing Ft. Belvoir Network Enterprise Center (NEC) Closed Restricted Network (CRN). This enabled communications and control of microgrid equipment. Figure 12 below shows the network architecture diagram of the microgrid communication and control equipment integrated with the existing CRN.

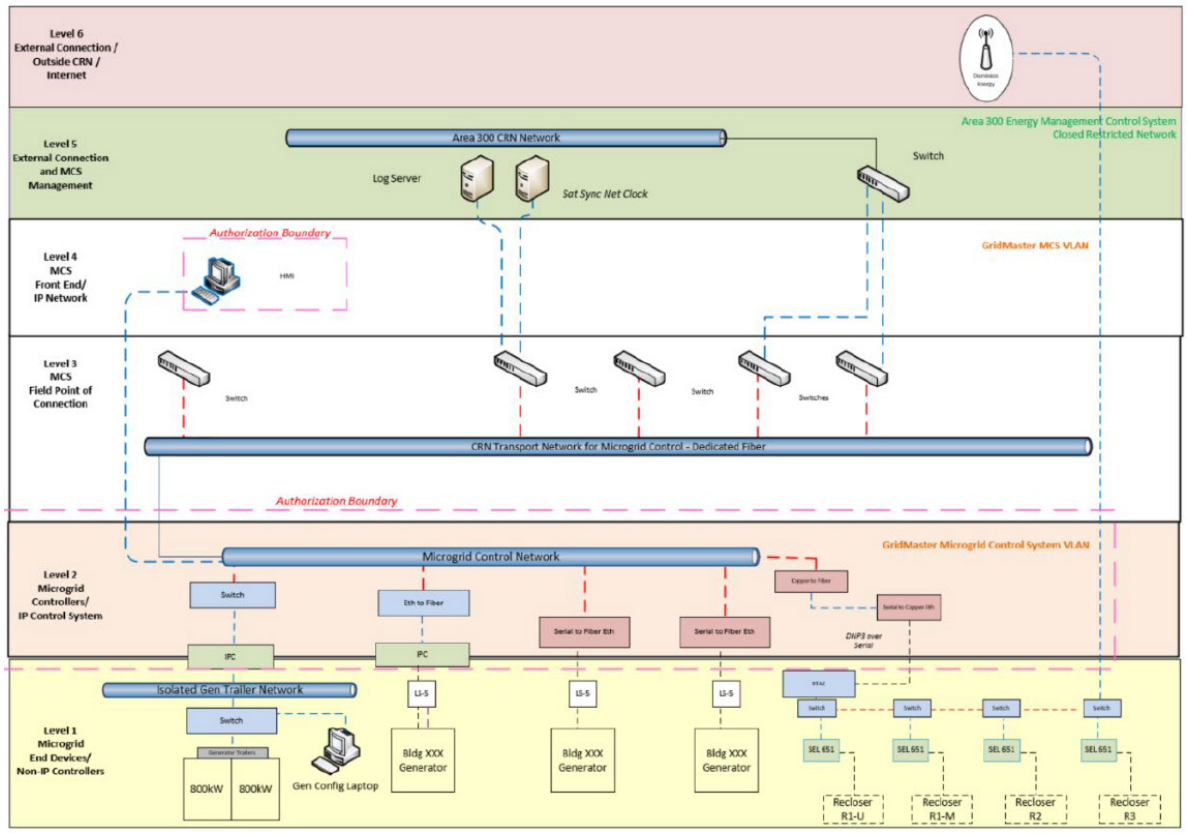

Figure ES-2. Network Architecture Diagram

PERFORMANCE ASSESSMENT

Quantitative Performance Objective 1 – Black Start

The black start objective was at the core of this project's demonstration. Keeping the black start process under 5 minutes was critical to ensuring minimal loss of base operations. To that end, many operation and verification steps were automatically executed via the IPC. (Figure 3).

Quantitative Performance Objective 2 – Parallel Existing Backup Generators with Mobile Generators

At least 8 hours of the demonstration occurred during normal working hours of a typical workday. This demonstrated that the microgrid can parallel mobile and fixed generation assets under realistic operating scenarios when building load fluctuations occur. IPERC control system algorithms prioritized at least one of the fixed generators to keep it online even as load on the grid drops below what could be handled by both mobile generators. (Figure 4).

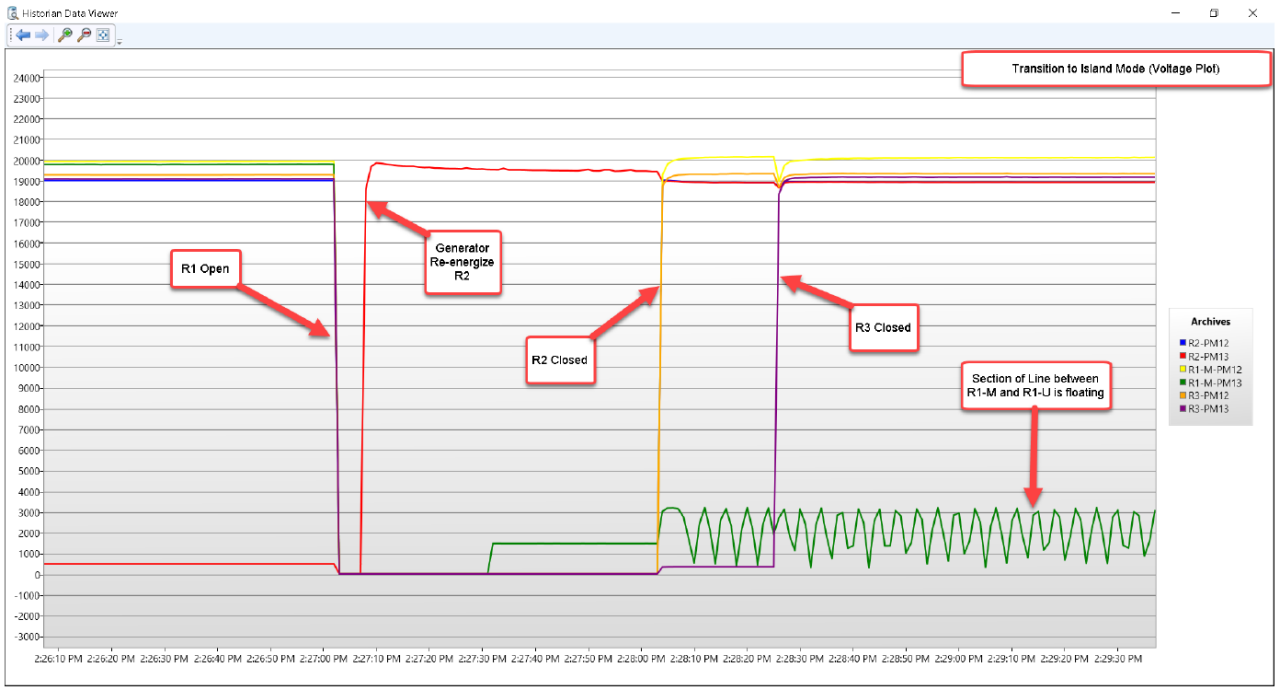

Figure ES-3. Transition to Island Mode (Voltage Plot)

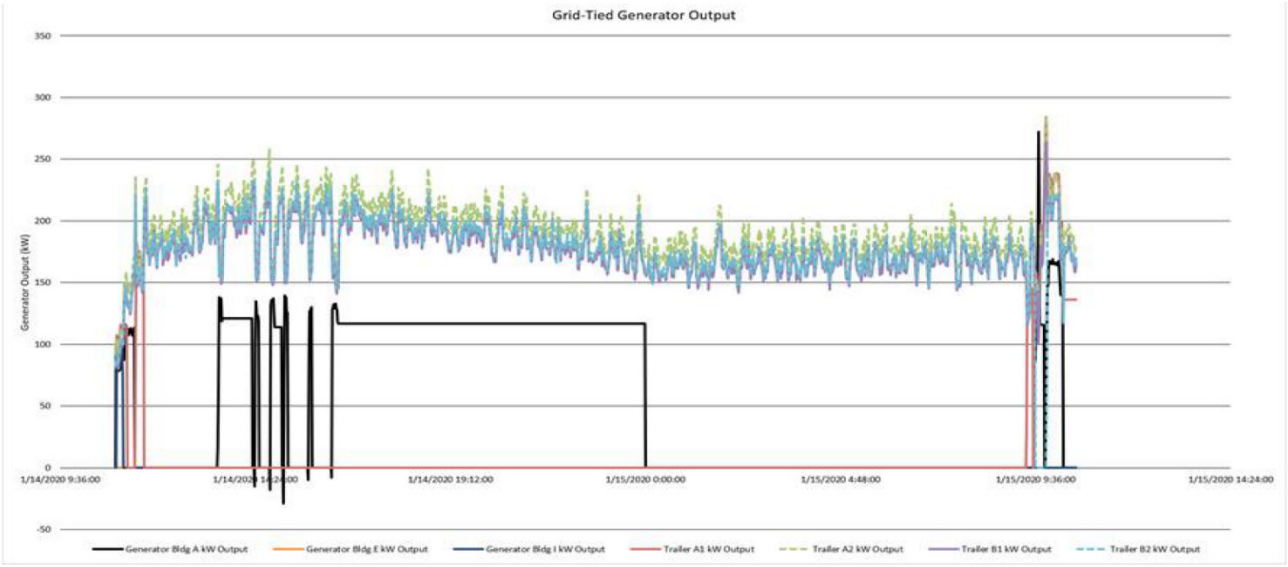

Figure ES-4. Generator Output (Paralleled) in Island Mode

Quantitative Performance Objective 3 – Power Reliability

Improving reliability of power throughout the microgrid area is an important performance objective. Measurements of power reliability must be compared against the current baseline, which includes almost 10 buildings in the microgrid area that are completely without power during a utility outage. When the microgrid is available, power reliability will be greatly improved as the utility presence will not be required for the tenants of Area 300 to have power.

Figure ES-5. Area Graph of Improved Reliability for System

This is an area graph for additionally served load. The green area is the additional kWh provided during the island period and the red is the linear amount of kWh provided with the existing backup generators.

Qualitative Performance Objective 1 – Demonstrate SOP and Checklist

The goal of Qualitative Objective 1 was to create SOP and checklist documentation to be used by project planners to quickly assess the viability of a microgrid (similar to that in this demonstration) across a variety of site locations and conditions. Using this checklist one can plot out existing infrastructure which is conducive to a microgrid application as well as areas which may require new hardware or retrofitting of equipment.

Check list topics include: Electrical loads, Communications, Electrical Infrastructure, Existing Generation, Generator Design, and Implementation For each topic we distilled the critical aspects for consideration: Questions, Success Criteria, Potential Challenges, and for reference the Conditions for the Ft. Belvoir Energy Security Microgrid. The final checklist can be found as Appendix B – Microgrid Evaluation Checklist.

Furthermore, the following section specifically explores requirements for generators which could be substituted or added to a microgrid like this Fort Belvoir demonstration.

Additional Generator Requirements for a Similar Microgrid

To be compatible with this demonstrated system as-is, a substitute generator (not the EN BN 249th) would need to match the control system interface (e.g., control points and protocols) and meet or exceed the physical and power system requirements. Any generators that have a different control system interface and/or electrical parameters would require engineering consideration and possibly other GridMaster® or power system design changes before applying. With engineering effort, a wide variety of resources could be integrated.

If the generators differ from the original design, considerations must include (but are not limited to):

- Controls:
  - Control system interface of the new resources (including connection medium, addressing, protocol and point mapping)
- Electrical:
  - Generator rated kW and kVA output
  - Generator minimum and maximum continuous load levels
  - Generator pitch
  - Generator impedance
  - Generator synchronization
  - Generator protection set suitably for required generator protection, system protection, ride through, and selective coordination
  - Generator governor and exciter hardware and settings suitable for stable operation during system transients and dynamics with other system resources
  - Connection phase rotation
- Physical:
  - How connections are made (both to the power system and securely connecting to the control system)
  - Equipment size and foundation requirement

Qualitative Performance Objective 2 – Cyber-secure Microgrid

Though this was a demonstration only and is not going to be operated (therefore authorized to operate) until the future phase commissioning of a fixed-operation microgrid, an RMF package was developed.

The RMF Package accepted by the base for future Authorization to Operate includes:

- Activation/Deactivation procedures/checklist
- Network architecture, data flow and authorization boundary diagrams
- Security Categorization form
- FAT and SAT Cybersecurity checklist
- Hardware, Software, and Points, Protocols and Services Lists
- Security Policies and Procedures for each security control family
- Draft appointment letters, waivers, and Service Level Agreement (with the local Network Enterprise Center (NEC))
- Completed STIG checklists for applicable STIGs
- System Security Configuration Baseline Guide

Secure communication with Utility reclosers was coordinated with Dominion Energy and NVESD. This included testing of tunneling protocols to secure "open" industrial protocols (e.g., Modbus/TCP, DNP3) and proposed architecture and risk discussions with Dominion and NVESD. The implemented solution was to allow connection of the GridMaster® Microgrid Control System to the SEL 651 devices on a Network Interface Card (NIC) separate from the NIC used for the connection with the utility. This provides a physical air gap of the microgrid and utility networks but allows for control of the reclosers either from the microgrid or the utility.

Due to the secure nature of this information, RMF deliverables have not been provided in this public report.

Qualitative Performance Objective 3 – Activation/Deactivation for Cybersecurity Measures

For the security procedures for a Non-Fixed microgrid, IPERC developed Activation/Deactivation Procedures not only to activate and deactivate the microgrid in a secure manner, but also to manage RMF policies and procedures for a system that is not "always on." The plan includes roles and responsibilities, requirements for annual review of the plan, applicable references and artifacts of the plan, activation and deactivation checklists, and a log template to record these activities.

The Activation/Deactivation procedure can be found as Appendix C – Security Plan Activation

COST ASSESSMENT

Table ES-2. Cost Model for an Energy or Water Technology

High Voltage (34.5 kV) Demonstration Costs		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware Capital Costs	(3) 50 kva pole mount grounding transformers, (3) 100kva pole mount grounding transformer, (4) reclosers, (1) 2000 kva step down transformer	$500,000
Installation Costs	Labor and Materials	Included in Hardware

Low Voltage (480 V and 208 V) Demonstration Costs		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware Capital Costs	Bypass Contactors, Breakers, Natural Gas Generator Controls Retrofit, Bypass Equipment Controls	$400,000
Installation Costs	Labor and Materials Costs (equipment installation)	Included in Hardware
Maintenance	Since the Demonstration is over a 72-hour period, the maintenance required for equipment is assumed to be negligible. However, if unforeseen equipment maintenance is required, IPERC will record that data.	N/A
Hardware Lifetime	Since the Demonstration is over a 72-hour period, degradation of equipment during the Demonstration is negligible. The equipment being used is designed for use over thousands of hours.	N/A

(4) 400 kW Mobile Generators from 249th EN BN		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
General Use	Fuel, parts, and other consumable materials related to generator operation.	$50,000

IPERC Microgrid Controller		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware Capital Costs	(2) Intelligent Power Controllers (IPCs)	$350,000
Installation Costs	Installation and Commissioning of Controls	
Electrical Studies	Labor	
Operator Training	Labor and Material Costs (training NVESD and Dominion)	

IMPLEMENTATION ISSUES

Permits

Approximately 4 months of time was allotted to apply for and obtain permits. These were coordinated directly with Virginia location services and had a lead time of approximately 2 weeks before they were performed.

Equipment Procurement

Some of the commercial-off-the-shelf equipment was applied in a non-traditional fashion. Thus, education was required for stakeholders to familiarize them with the equipment application.

The microgrid controller is not off-the-shelf equipment. This device must meet specific hardware, software, and cybersecurity requirements. In addition, the specific controller integrator selected should have previously demonstrated the ability to obtain an Authority to Operate with their microgrid controller at a mission critical military facility.

The grounding configuration of the mobile generators and design of the step-up transformer on Ft. Belvoir Energy Security Microgrid required that pole-mount grounding transformers be installed on the overhead 34.5 kV system. These were used to mitigate system imbalance.

Site Conditions – Future Considerations

Sectionalizing on the Ft. Belvoir Energy Security microgrid was accomplished by installing four (4) 34.5 kV overhead reclosers with custom programmed relays. These relays were controlled by the GridMaster® microgrid controller. During black start and island operation, the GridMaster® Microgrid Control System opened and closed these reclosers to island from the utility, successfully power microgrid loads during islanded operation, and return to grid tied operation.

The fixed building generators for the Ft. Belvoir Energy Security Microgrid were retrofitted with Woodward EasYgen controls since their existing controls did not have the ability to parallel with other generators and log operation events.

Low voltage bypass contactors were installed for the Ft. Belvoir Energy Security microgrid. These were installed within electrical rooms of buildings with fixed building generators to provide the ability to parallel the fixed building generators with the 249th EN BN mobile generators. Installing this equipment proved to be challenging because of limited space in the building electrical rooms and because some existing electrical equipment was not in proper working condition.

1.0 INTRODUCTION

The Energy Security Microgrid project at Area 300 on Fort Belvoir demonstrates how existing distributed and mobile generation, electrical infrastructure upgrades, and a cyber-secure microgrid controller can be deployed to provide energy resiliency and cost savings. The project proved that existing building backup generation assets could be paralleled with mobile temporary generation to meet electrical load demands for mission critical facilities. This showed that microgrids constructed in this manner can help military facilities capture cost savings by avoiding the negative impact that extended utility outages have on projects and missions.

To construct the microgrid, existing fixed building generation assets, normally operated in isolation from each other, were upgraded with modern controls. New electrical switching equipment was installed on the overhead 34.5 kV distribution system to allow the fixed generation to parallel with mobile temporary generators to serve as the backbone of the microgrid. Automated and sophisticated microgrid controls delivered by the GridMaster® Microgrid Control System were configured and installed to enable the microgrid to control, form, and sustain the electrical load during extended utility outages.

The successful demonstration of fixed and mobile generation proved the concept and will allow the Department of Defense (DoD) to pursue similar microgrid projects. Taking this same approach, mobile generation can be deployed on an as-needed basis to provide reliable and cyber-secure energy production. This report details findings from the demonstration and future considerations for pursuing similar microgrid projects at other military facilities.

1.1 BACKGROUND

IPERC developed the GridMaster® Microgrid Control System technology to ideally suit both military installations and municipal microgrids. The GridMaster® is a community of Intelligent Power Controllers deployed in a distributed nature to provide a level of sophisticated controls unmatched in the industry. The system is robust and provides automated, intelligent decision making coupled with resilient design and a cyber-secure architecture.

The GridMaster® solution provides energy cost savings by selectively turning off additional capacity when it is not required. At the same time, the advanced algorithms maintain enough spare generation to be able to handle load fluctuations, keeping the grid stable while maintaining efficiency.

1.2 OBJECTIVE OF THE DEMONSTRATION

The objective of this demonstration was to simulate a utility power outage on a portion of Ft. Belvoir and recover from the outage with a temporary microgrid to carry base load. Successful completion will illustrate emerging potentials of a cybersecure microgrid control system capable of providing energy security, cost savings and cybersecure communications using existing and available on-site assets.

1.3 REGULATORY DRIVERS

The primary driver addressed by this Demonstration was to provide energy security to the 300 Area of Fort Belvoir. Additionally, the Demonstration illustrated the viability of cost-effective microgrids to be deployed throughout military facilities. This approach was directly aligned with the July 2010 Memorandum of Understanding (MOU) between the Department of Energy and Department of Defense to strengthen coordination of efforts to enhance national energy security. Several activities listed within the MOU were addressed in this demonstration including:

- Evaluation of energy systems that meet DoD objectives including developing energy technologies (such as the microgrid control system).
- Deployment and pilot testing of emerging technologies
- Demonstration facilities which address military needs (such as secure power, cybersecure control system).
- Encourage professional exchanges between DoD components (coordination of on-base personnel and contractors)

The Demonstration provides the DoD with a proven, tested cybersecure microgrid control system as well as a blueprint for future microgrid deployments which use on-site assets. These outcomes connect with expectations of the DOE/DoD MOU.

2.0 TECHNOLOGY DESCRIPTION

2.1 TECHNOLOGY OVERVIEW

The primary technology used for the demonstration was the IPERC GridMaster® Microgrid Control System. The GridMaster® automatically balances distributed energy resources with electrical demand in real time to ensure critical loads are satisfied at all times. The system's unique distributed architecture ensures mission-critical continuity of operations and eliminates the single point of failure common in traditional programmable logic controller (PLC) or master-slave control architectures.

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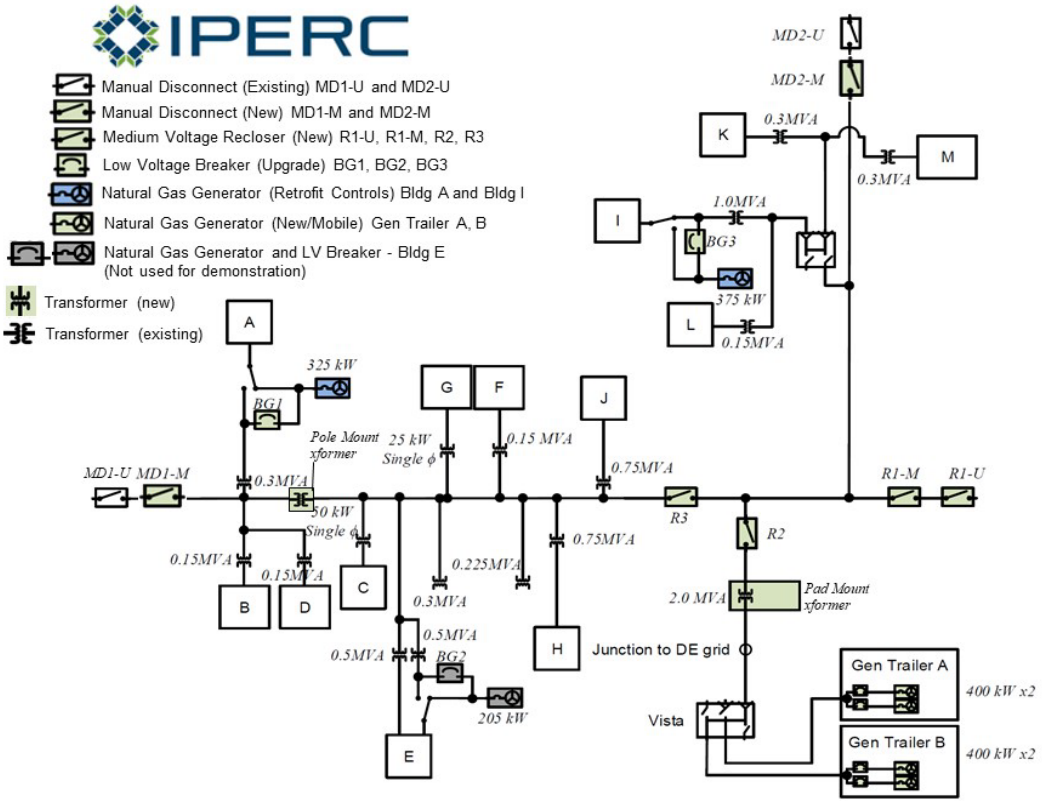

Figure 1. Electrical One-line Diagram

Prior to the Fort Belvoir microgrid demonstration project the GridMaster® Microgrid Control System has been deployed in numerous utility and military installations; major projects include:

- Ameren TAC Microgrid - Location: Champaign, IL Completed: 2017
  - Developed GridMaster® use cases including grid-tied, islanded, frequency control, demand response, peak load shaving and storm preparedness.
- Camp Smith Microgrid - Location: Camp Smith, HI Completed: 2016
  - Developed GridMaster® capabilities to operate with load shedding capabilities to preserve critical buildings within the microgrid.
- Pearl Harbor Microgrid - Location: Hickam, HI Completed: 2013
  - Developed controls system to include cybersecurity for SPIDERS microgrid.

To date, each installation of the GridMaster® has been customized for that particular site. This is due to the unique scenarios and control decisions that must be tailored to accommodate the specific use cases as requested by the system owner. Because of this, version numbers have not been very meaningful for a given instance of the GridMaster® software. IPERC internally tracks each installation and preserves the code associated with that installation; this effectively acts as the version. IPERC is currently developing a field-customizable version of the GridMaster® software that should allow for a single software suite to be deployed at numerous sites. At that point we will have version numbers associated with the software that can be used for determining the suitable applicability of upgrades. Note also that it will be necessary to assign secondary version numbers to the actual configuration information associated with each site to track any configuration changes (equipment modifications, additional data points, etc.) that affect the operation of the microgrid.

Essentially, if the GridMaster® is working for a given site, no additional upgrades are needed. However, if site equipment is changed (DERs, communications, etc.) or additional functionality is requested, there will necessarily need to be modifications to the control software.

Expected applications of this technology are far reaching. This demonstration will serve as a blueprint for military bases around the world that have comparable electrical infrastructure and assets (i.e., fixed backup power and access to mobile generators) – especially mission critical installations where power loss is unacceptable. The critical nature of hospitals, first responders, and disaster shelters, for example, will also benefit from a microgrid features including power assurance, cyber security, and even renewable power integration.

2.2 TECHNOLOGY DEVELOPMENT

Although the GridMaster® Microgrid Control System was in a mature product state at the outset of this project, some modifications were made in order to successfully apply this technology at Fort Belvoir. Furthermore, several parameters and operating conditions needed to be studied to ensure the system was properly configured. The results of these efforts include:

Communications and Controls

- GridMaster® Microgrid Control System Software and Control Strategy Simulation – Using proprietary microgrid simulation software tools, the control algorithms were simulated in a virtual test environment to test microgrid control system response to dynamic grid scenarios and events. The simulation results were used to fine tune microgrid control system process sequences, timing, and response to changes in online generation and electrical loads.

- The GridMaster® IPCs at Fort Belvoir used their digital input hardware to monitor access to enclosures holding the controllers. A contact switch was connected to the enclosure doors that indicated when the door was open. This monitored point provided a visual indication of the door status (open or closed) as well as an archived record of the status that could be used for forensic purposes in the event of a physical intrusion of the control system.
- A second Network Interface Controller (NIC) was added to one IPC to create a separate network on which a mobile laptop could be connected and could access the Caterpillar (CAT) generators, as well as monitor the primary control network through the GridMaster® GUI. This allowed the laptop to view the HMI (via the IPC) and the CAT communications modules simultaneously without requiring a direct connection to the control network. This would allow an IPC to, for example, communicate with the rest of the control network on one NIC while having "private" conversations with a piece of equipment on the other.
  - This has the cyber benefit of having a controlled device that is not on the local (or wide-area) network. That particular controlled device could be connected directly to an IPC on one NIC, and that IPC then communicates with the rest of the IPCs (and other controlled devices) through the second NIC. It is similar to having a device communicate with a single IPC directly over serial.

Studies

Power system studies were utilized to support design and configuration of the power system and microgrid control system to meet project needs. Several techniques were utilized throughout the power system study and design process to address project challenges. These include:

- The islanded microgrid system inevitably operates at a slightly different frequency than the grid. This frequency difference causes atypically high voltage withstand requirements on open points of interconnection while islanded. To address this challenge, two open points were opened in series while the microgrid was islanded.
- The microgrid integrated several existing generators. In order to successfully operate these generators in parallel, several challenges had to be addressed.
  - Existing building generators were connected via automatic transfer switches (ATS). These switches separate the generators and local loads to operate islanded. To enable building generation to operate in parallel with other microgrid generation, the ATS interconnections were re-designed and retrofitted.
  - Existing system generator load sharing controls also required study and upgrades. When operation as emergency backup generators, a single generator supplies the local load. While islanded with multiple generators online, how generators share load and adjust output dynamically with load changes required upgrades. The generators were retrofitted with advanced generator controls that allowed normal emergency operation and following commands operating in parallel with the microgrid. The transient and dynamic stability of this system was tested to evaluate expected generator and controls behavior when the load changes. This behavior was tested on site and tuned to achieve desired performance.
  - Generator pitch must be considered when paralleling. Mismatched pitch can cause harmonic current flow. One generator had different pitch from others, which limited its use in parallel with other generators.

- The local distribution system has been historically protected by overcurrent protection, which identifies faults by the significantly elevated current levels. While islanded, the local generation supplies significantly less fault current than the local utility system. In some cases, the fault current was comparable to the load current. To address this challenge, an adaptive protection scheme was implemented to change protection settings and logic between grid-tied and islanded operation. The very low fault current levels while islanded were difficult to detect using standardized equipment because the current is near the minimum reliable current detection level. Furthermore, care was taken to implement the adaptive protection in a way that was compatible with the requirements of the local utility and their normal operating practices.
  - Transformer magnetizing inrush can cause elevated current levels, which can challenge the security of the sensitive islanded protection. This inrush was studied using power system analysis tools to understand expected inrush currents and voltage depressions. The protection scheme utilized voltage and harmonic blocking logic to avoid undesirable protection operation when energizing the system.
- The local distribution system is designed to be effectively grounded while grid-tied. Care was taken when designing the microgrid and selecting transformers to ensure the system was effectively grounded at all times while islanded. To achieve effective grounding while islanded, a separate grounding transformer was required on one circuit segment.

Cybersecurity

The Technical Approach for Cybersecurity of the Fort Belvoir Energy Security Microgrid included 3 main activities: 1) Security Procedures for a Non-fixed Microgrid, 2) secure communications with Utility reclosers, and 3) Risk Management Framework (RMF) package preparation.

For the security procedures for a Non-Fixed microgrid, IPERC developed Activation/Deactivation Procedures not only to activate and deactivate the microgrid in a secure manner, but also to manage RMF policies and procedures for a system that is not "always on." The plan includes roles and responsibilities, requirements for annual review of the plan, applicable references and artifacts of the plan, activation and deactivation checklists, and a log template to record these activities.

Secure communication with Utility reclosers was coordinated with Dominion Energy and NVESD. This included testing of tunneling protocols to secure "open" industrial protocols (e.g., Modbus/TCP, DNP3) and proposed architecture and risk discussions with Dominion and NVESD. The implemented solution was to allow connection of the GridMaster® Microgrid Control System to the SEL 651 devices on a Network Interface Card (NIC) separate from the NIC used for the connection with the utility. This provides a physical air gap of the microgrid and utility networks but allows for control of the reclosers either from the microgrid or the utility.

Though this was a demonstration only and is not going to be operated (therefore authorized to operate) until the future phase commissioning of a fixed-operation microgrid, an RMF package was developed. The package included the Activation/Deactivation procedures, as described, network diagrams, security categorization and configuration baseline, FAT and SAT cybersecurity checklists, applicable Security Technical Implementation Guides (STIG) checklists, hardware, software and points, protocols and services lists, organizational security policies and procedures and other accompanying RMF artifacts.

2.3 ADVANTAGES AND LIMITATIONS OF THE TECHNOLOGY

The GridMaster® Microgrid Control System is a controls solution that goes beyond industry standards by automatically balancing distributed energy resources with electrical demand in real time to ensure that critical loads are satisfied always. The system's unique distributed nature ensures mission-critical continuity of operations and eliminates the single points of failure common in traditional programmable logic controller (PLC) or master-slave control architectures. The GridMaster® Microgrid Control System consists of distributed Intelligent Power Controllers (IPCs), which are single-board computers connected to generation, loads and power switching equipment. The IPCs are networked together with each representing a specific piece or group of equipment connected to the microgrid. All IPCs are in constant peer-to-peer communication with each other in a distributed architecture and provide intelligent load balancing and prioritized microgrid operations. Each IPC can provide supervisory control over the entire grid, so that even if a single controller fails, the remaining available controllers automatically nominate a replacement IPC to act as the supervisory controller.

Cost savings are realized by utilizing existing generators more efficiently rather than requiring new generators or expensive generator upgrades. With control upgrades the existing generators can be paralleled together using the existing low and medium voltage electrical infrastructure. Existing generation can be used once retrofitted to fulfill an entirely differently role in the microgrid. Previously, a fixed generator might only provide backup power to a building, while having considerable spare capacity going unused. By integrating existing generation into a microgrid that uses the existing electrical infrastructure, the cost savings can be considerable when compared to purchasing new generators.

One cost limitation is the potential need for additional switchgear on the low and medium voltage distribution lines to sectionalize the electrical distribution system. This electrical equipment is required to isolate the microgrid from the utility and assist with block loading the generators when forming the microgrid from a blackstart. However, this need is completely dependent on the microgrid design, facility loads, electrical system topology, number and size of existing transformers (more below in section 2.3.1), and the ability for the microgrid to parallel with the utility.

Lastly, although the GridMaster® Microgrid Control System is heavily automated, the complex nature of microgrid controls and electrical infrastructure may require additional training and qualification for the operators.

3.0 PERFORMANCE OBJECTIVES

The identified performance objectives enabled measurement of the consistent and predictable behavior of the microgrid. They evaluated both operational and functional capabilities of the designed microgrid. Success in these objectives illustrated the capabilities of the microgrid controller and the demonstrated approach to installing microgrids. The specific performance objectives are included in Section 3.1.

3.1 "TABLE 1" SUMMARY OF PERFORMANCE OBJECTIVES

Investigators collected data before and during system operation to evaluate the technical objectives of the project. Sections 5.0 and 6.0 of the report include details on the methods for collecting and analyzing the data needed to assess the performance objectives.

Table 1. Performance Objectives

Performance Objective	Metric	Data Requirements	Success Criteria	Results
Quantitative Performance Objectives				
Black Start Capability	Energize load connected to system from cold start.	After the grid has been established from a cold start, measure voltage, frequency, and power.	Loads are energized from a cold start under 5 minutes and the voltage, frequency, and power measurements are within the operational tolerances of a traditional utility system.	Successful microgrid energization from black start. Voltage, frequency, and power measurements are depicted in section 6.1.
Demonstrate a design that incorporates existing building generation assets with mobile generators	Parallel at least one existing building generator with mobile generation to form the microgrid.	Verify the existing building generator has paralleled with the mobile generators. Measure and record generation variations of the existing generators	At least one existing building generator is paralleled with the mobile generators.	Both building generators were paralleled with the mobile generators after island black start. See section 6.2
Power Reliability	Comparison between fixed backup generators and mobile-supported microgrid	Mobile and fixed generator reliability numbers	Microgrid with mobile generation increases reliability	Successful - 10 additional buildings powered with microgrid vs. existing 1 for 1 backup generator to building setup. See Section 6.3
Qualitative Performance Objectives				
Demonstrate SOP and checklists for a broad application	System operational capabilities	Electrical design analysis, microgrid performance data	Time-saving SOPs & checklists developed to assist military installation in evaluating microgrid capabilities	Successful - SOPs enabled quick site assessment for rapid project restarts between demonstrations. See microgrid site assessment checklist (Appendix B)
Cybersecure Microgrid	Microgrid cyber enclave(s) established at acceptable level of risk	RMF Security Plan, SOPs, policies, security checklists, and artifacts to NVESD	NVESD accepts and approves of documentation and self-assessment test results.	Successful - Full RMF package delivered, with low residual risk See NVESD Security Activation Plan (Appendix C)
Cybersecurity methods for non-fixed microgrids	Integration of non-fixed microgrid security mitigations into standard CS authorization requirements	De-activation and reactivation requirements and documentation, cybersecurity authorization process integration	Approved activation & reactivation processes. Methods included in system documentation to NVESD	Successful -Cybersecurity activation / deactivation procedures delivered for intermittent DERs See NVESD Security Activation Plan (Appendix C)

3.2 PERFORMANCE OBJECTIVES DESCRIPTIONS

Quantitative Performance Objective 1

- Name and Definition: Black Start Capability – the system will be able to conduct a black start when utility power is not available. Black start is expected to occur within approximately 3 to 5 minutes from utility outage during the 72-hour demonstration.
- Purpose: Black start capabilities are critical to the overall functionality of a microgrid. This demonstration will show that the loads can be energized within a reasonable response time from a condition where utility power has been lost. This is a standard, but important, microgrid expectation.
- Metric: The microgrid control system will operate as designed and energize the loads connected to the microgrid from a black start in under 5 minutes.
- Data: To verify this has occurred, voltage, frequency and power measurements will be taken once the loads are energized from the microgrid generation assets.
- Analytical Methodology: Black start process timings will be recorded, along with data throughout the microgrid including but not limited to voltage, frequency, and power.
- Success Criteria: The objective will be met if the loads can be energized from the microgrid generation assets while the system is disconnected from local utility power. To verify a successful energization, the microgrid voltage, frequency, and power will be measured. A successful energization will occur if these values fall within the acceptable tolerances of a traditional utility system. A black start will commence no later than 5 minutes after the black out.

Quantitative Performance Objective 2

- Name and Definition: Demonstrate a design that integrates existing fixed generation assets with mobile generation. The system will be able to form the grid by paralleling and managing at least one of the three existing building generation assets with the mobile generators. However, IPERC intends to parallel all three fixed generators to the mobile generation to showcase the full capabilities of the system. Success will be measured on whether just one fixed generation asset can be paralleled to the mobile generators, as even one generator demonstrates that existing fixed generation assets can integrate with mobile assets.
- Purpose: Given the load demand, the mobile generation assets could be used on their own to supplement load during microgrid mode. But utilizing the onsite building generators to form the microgrid proves that a microgrid can be constructed from existing assets rather than solely new equipment.
- Metric: At least one existing building generation asset is paralleled with the mobile generation assets. The existing generation asset will be monitored and controlled to support more or less of the load over time.

- Data: Using data gathered from the IPC as well as on-site observations, confirm that the existing generation asset is paralleled to the mobile generation. Vary the output of the existing building generator and graph the change in power produced over time as measured and recorded by the IPC.
- Analytical Methodology: Graphical analysis will be used to verify monitoring and control of the existing building generator over time.
- Success Criteria: At least one existing building generator will be paralleled with the mobile generators to support the load during microgrid mode. The microgrid operator will have the ability to monitor the existing building generator output while supporting the load.

Quantitative Performance Objective 3

- Name and Definition: Compare the power reliability statistics of the buildings participating in the microgrid before and after the microgrid has been implemented.
- Purpose: The purpose is to verify that the microgrid increases the power reliability of the buildings participating in the microgrid.
- Metric: Measurements before and after microgrid: minutes of unserved load, # of major interruptions, kW/kWh of unserved load over specified time-frame.
- Data: To verify this statistic, historical power reliability statistics will be collected from Dominion Energy on the subject area of the 34.5 kV distribution system. Power reliability statics of the buildings after microgrid implementation will be measured. The measurements will be taken via the overhead 34.5 kV reclosers by measuring the power across R1, R2, and R3. Power to each building can be verified via building electrical meters.
- Analytical Methodology: New power reliability statistics of the buildings will be calculated based on the previous outage data and new reliability statics after microgrid implementation.
- Success Criteria: The buildings within the microgrid are determined to have increased reliability after microgrid implementation.

Qualitative Performance Objective 1

- Name and Definition: Demonstrate SOP and checklist for broad application – use lessons learned to develop a usable plan for future applications.
- Purpose: The microgrid design to be demonstrated is unique and the SOP will assist installation energy managers in determining viability of microgrids at their installation.
- Metric: System operational capabilities will be evaluated to show feasibility.
- Data: To verify this assumption, electrical design analysis will be conducted as well as a collection of microgrid performance data.
- Analytical Methodology: Not applicable to this performance objective.
- Success Criteria: An SOP and user checklist is developed to assist military installations in evaluating their existing electrical distribution system and available generation for feasibility within a microgrid.

Qualitative Performance Objective 2

- Name and Definition: Cyber-secure microgrid – the demonstrated microgrid will meet DoD best practices and cybersecurity standards.
- Purpose: Microgrid controls systems are required to complete cybersecurity validation and receive an Authority to Operate (ATO).
- Metric: All RMF security plan, SOPs, policies, security checklists, and artifacts are delivered to NVESD.
- Data: Documentation associated with cybersecurity requirements will be collected and submitted to the NVESD. The documents include implementation of technical controls in the RMF security plan, policies and artifacts.
- Analytical Methodology: Not applicable to this performance objective.
- Success Criteria: NVESD accepts and approves of documentation and self-assessment test results.

Qualitative Performance Objective 3

- Name and Definition: Cybersecurity methods for non-fixed microgrids – development of cybersecurity methods to ensure stability within microgrids with fixed and non-fixed generation assets.
- Purpose: The microgrid design to be demonstrated uses a mix of fixed and non-fixed generation assets. This creates a challenge in ensuring the cybersecurity of the system if different assets are available at different stages.
- Metric: The system will require the integration of non-fixed microgrid security mitigations into standard cybersecurity authorization requirements.
- Data: To verify compliance with the cybersecurity requirements, de-activation and reactivation requirements and documentation and cybersecurity authorization processes will be integrated.
- Analytical Methodology: Not applicable to this objective.
- Success Criteria: The de-activation and reactivation processes are approved by the Information System Security Manager (ISSM), Mr. Horner, and the methods are included in the cybersecurity documentation.

4.0 FACILITY/SITE DESCRIPTION

4.1 GENERAL FACILITY/SITE SELECTION CRITERIA

The Ft. Belvoir site selected for the microgrid has buildings with a variety of interconnected electrical loads ranging from non-critical to mission critical facility loads. This ensures the microgrid is tested on loads representative of a typical military installation. The site has a medium voltage overhead electrical distribution system typical of the most common military installations. The site also has available space to deploy the four (4) 400 kW mobile generators in an area where a step-up transformer can be installed, and connection can be made to the 34.5 kV overhead system. A portion of the buildings have existing electrical generation assets. This enables the concept of creating a microgrid with new and existing generation assets to be tested. Several of the buildings have low voltage electrical equipment that can be commonly found at other military facilities. For these reasons, the specific area on Ft. Belvoir selected for the microgrid meets the site selection criteria.

4.2 DEMONSTRATION FACILITY/SITE LOCATION AND OPERATIONS

The demonstration occurred within a specific area of Fort Belvoir, focusing on thirteen (13) buildings along the main utility feeder. The map below (Figure 2) shows the microgrid buildings and associated equipment. The demonstration utilized existing generation equipment, which is noted in the map as well.

Finding qualified electricians and contractors to work on the hardware installation was a low risk. Ft. Belvoir NVESD assisted with securing installation resources for the work. Ft. Belvoir NVESD personal were familiar with several contractors that can perform this work, mitigating this risk. Furthermore, Dominion Energy supported the project with regards to modifying the existing medium voltage electrical system.

Control system upgrades on the existing fixed generators and low voltage electrical system modifications required downtime for the equipment in question. As deemed necessary by IPERC, temporary generators were supplied when these systems were retrofitted at Building E and Building I. The purpose of these temporary generators was to provide backup power to a portion of the building's load if utility power was lost when the existing building generators were out of service due to the retrofit work. The 34.5 kV recloser installations were completed without an electrical outage, as per the standard operating procedure of Dominion Energy.

As of 6/29/17, all buildings approved the requested hardware modifications to existing assets to implement the microgrid.

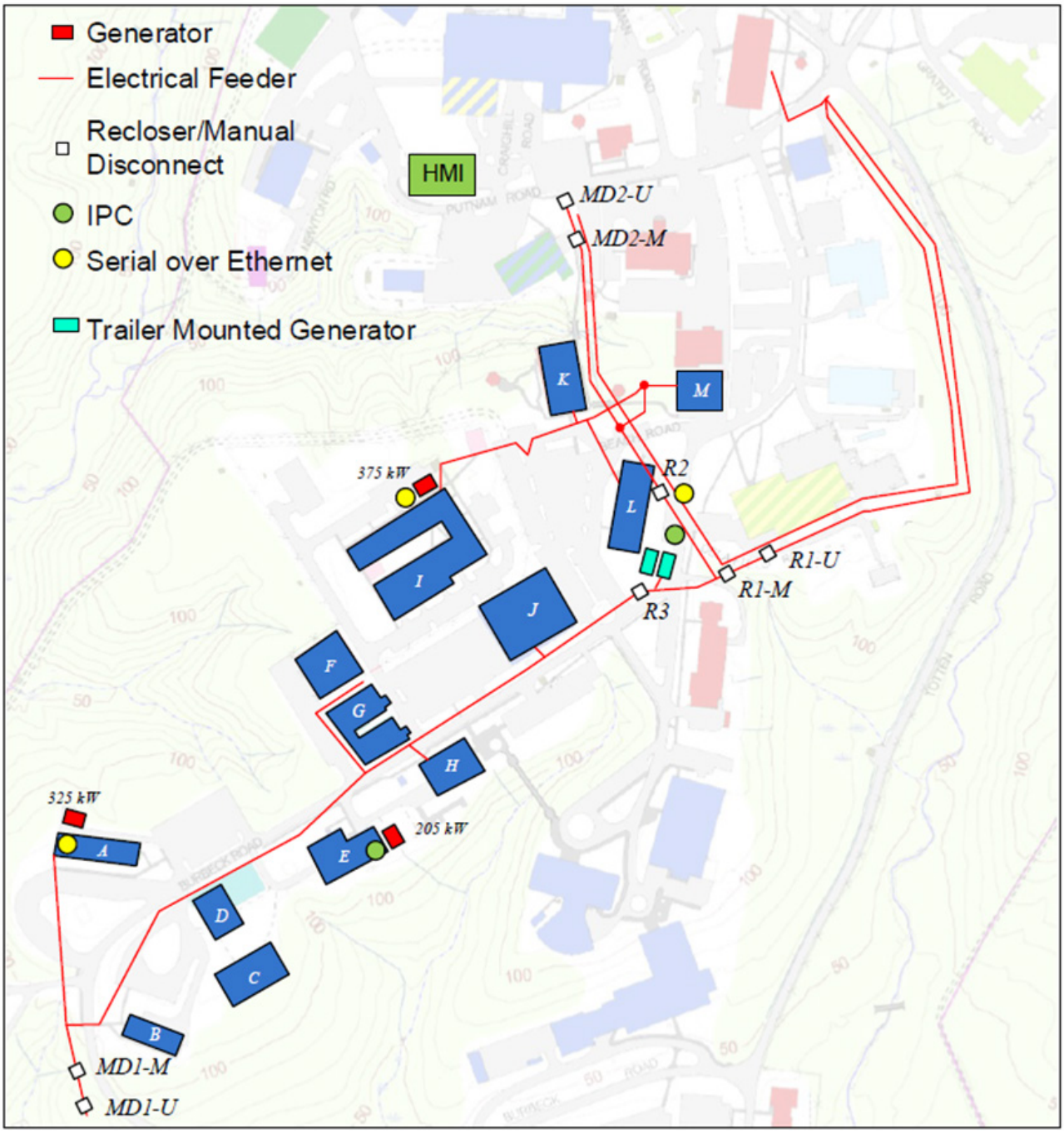

Figure 2. Geographical Location of Buildings and Generation Assets

Figure 3. Existing Transformer at Building A

Figure 4. Existing Building A Generator (325kW)

Figure 5. Existing Building E Generator

Figure 6. Existing Building I Generator (375kW)

4.3 CHANGES TO THE DISTRIBUTION SYSTEM

Existing assets at Building A, E and I described above were modified in order to join the microgrid. All existing generators were originally configured to provide backup building power, controlled by an automatic transfer switch (ATS). A bypass breaker was installed to allow the generator to connect directly to the grid during microgrid mode. This allowed the generator to parallel to the 34.5 kV electrical system, effectively bypassing the ATS.

Figure 7. Installed Low Voltage Bypass Contactor

Each fixed generator was retrofitted with an easYgen controller. This talked directly with the IPC (in the case of Building E) or talked through the network by converting serial to fiber ethernet communication. There were several critical networking components, namely advanced software defined network (SDN) capable switches (SEL2740). Per the design requirements, the mobile trailer generators were not retrofitted. They communicated through their existing EMCPII+ controllers to the IPC located near the trailers.

Control enclosures housing the IPC and associated equipment were installed at Building E and near Building L at the temporary trailer generator connection point.

A S&C Vista® Underground Distribution Switchgear was used to electrically connect the mobile generators to the electrical grid.

Figure 8. Example S&C Vista Switchgear

The existing 34.5 kV electrical distribution system was modified to add four (4) 34.5 kV overhead reclosers, two (2) manual disconnect switches, two (2) pole mounted grounding transformers and one (1) 2 MVA pad-mount transformer.

Overhead 34.5 kV reclosers were added to provide protection and sectionalizing capabilities when the microgrid is forming or operating during islanded mode. Recloser R1-U (Figure 1) will open when the microgrid is formed to island the system from the utility. Per IEEE 1547, Two (2) reclosers (R1-U and R1-M) were installed in series at the microgrid point of interconnect because a single recloser is not able to withstand 2 Per Unit (PU) voltage for extended periods of time. This could occur when utility voltage is present on one side of the switch and microgrid voltage is present on the other side of the switch during microgrid operation. Other installations may only require a single utility disconnect depending on the existing utility voltage and breaker rating. A 69 kV distribution system would have more recloser options available for the 2 PU withstand requirements.

Figure 9. Overhead Recloser

Due to the same issue with 2 P.U. withstand capability, one (1) overhead disconnect switch was installed at each of the normally open points - MD1 and MD2 in Figure 1- on the distribution system. With this addition, there are now two (2) manual disconnect switches in series at each of the normally open points that form the boundaries of the microgrid.

The pole-mounted grounding transformer was installed downstream of recloser R3 because of the configurations of the transformers at buildings with fixed generation assets downstream of this recloser. The generators at these buildings are isolated from the 34.5 kV system grounding. The grounding transformer helps prevent overvoltage conditions if the generators are running during microgrid mode and there is a line-to-ground fault condition on the 34.5 kV system downstream of recloser R3, after R3 has operated to clear the fault.

Figure 10. Pole Mounted Grounding Transformer near Recloser R3

The four (4) 400 kW mobile temporary generators required a new 2 MVA pad-mounted transformer to step up voltage from their normal output of 4.16 kV to the distribution system voltage of 34.5 kV. Underground cabling was installed between the transformer to the nearest utility pole to connect the mobile temporary generators to the electrical distribution system.

Figure 11. Location of Mobile Temporary Generation (L) and 2.0 MVA Transformer (R) Adjacent to Building L

From a theoretical standpoint, existing building generation assets could be used to set the voltage and frequency reference to form the microgrid if they were retrofitted with the correct controls, high speed communication, and generation capacity. However, based on the building generation assets that were selected for the project, the three (2) building generators chosen do not have enough generation capacity to support the entire microgrid load. Additionally, the high transient power due to the large number of transformers at this location require a higher initial power impulse than the three (2) building generators could provide. That is why the four (4) 400 kW mobile generators from the 249th EN BN were added to the system design. The four (4) 400 kW mobile diesel generators set the voltage and frequency for the microgrid and the three (3) additional natural gas building generators were paralleled to the mobile generators to form the microgrid. As the microgrid load varied, both the mobile generators and fixed generators were dispatched and curtailed to support the load. Only the mobile generators load-followed, while the fixed generators were given an appropriate output command to balance the power throughout the microgrid.

4.4 COMMUNICATION NETWORK CYBERSECURITY AND APPROVALS

IPERC and NVESD worked together to connect microgrid communications equipment into the existing Ft. Belvoir Network Enterprise Center (NEC) Closed Restricted Network (CRN). This enabled communications and control of microgrid equipment. Figure 12 below shows the network architecture diagram of the microgrid communication and control equipment integrated with the existing CRN.

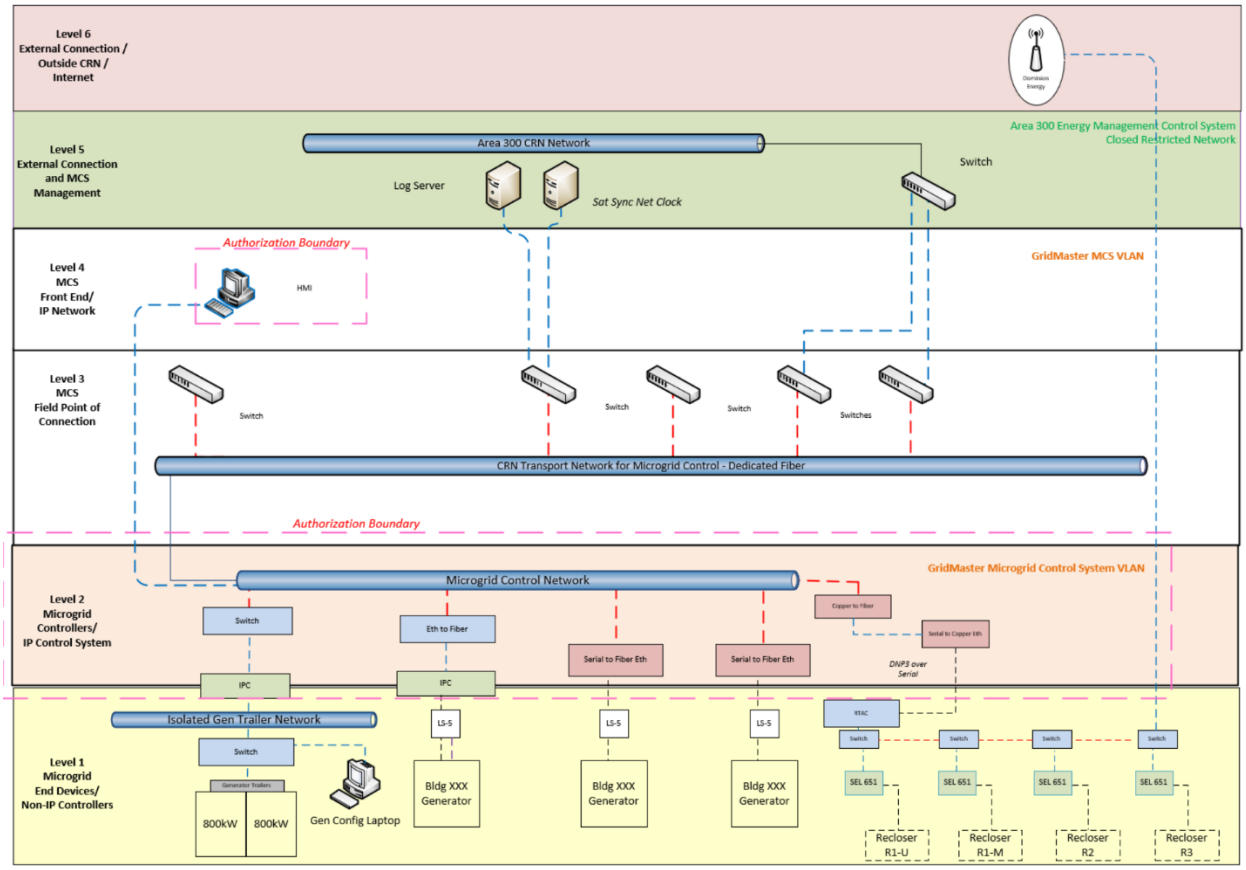

Figure 12. Network Architecture Diagram

4.5 FUTURE AUTHORITY TO OPERATE (ATO) VALIDATION AND IMPLEMENTATION

A preliminary RMF package was created and because the microgrid is not an "always on" system, an Activation/Deactivation procedure checklist was provided. See section 6.5 for RMF artifact details. In addition to the activation checklist, the system owners would need to perform the following to pursue an Authorization to Operate (ATO) for the system:

- Convene Configuration Control Board (CCB) meeting(s) to manage the RMF ATO effort and track any changes to the baseline
- Identify any new STIG and Security Requirements Guide (SRG) checklists applicable and download with all the latest versions of each STIG checklist
- Apply compliance measures for any new STIG/SRG checklist items
- Update all software applications to the latest version in accordance with the Vulnerability Management Plan
- Apply security updates to all software applications, operating systems and Basic Input/ Output System (BIOS)
- Review all policies and procedures to assess for compliance and update as necessary

- Update network diagrams, hardware, software, and ports, protocols, and services (PPS) lists
- Review and update other RMF artifacts, such as Service Level Agreements, Contingency Planning, Incident Response Plans, and System Configuration Guide (if baseline configuration is changed)
- Register the system in the Enterprise Mission Assurance Support Service (eMASS)
- Perform Security Content Automation Protocol (SCAP) and Assured Compliance Assessment Solution (ACAS scans; fix findings and rescan)
- Upload scans and artifacts to the eMASS record for the system
- Perform a self-assessment (initial System Security Plan (SSP) and Assessment Procedure (AP) test results spreadsheets provided) and follow RMF processes to submit the package through the approval stages

5.0 TEST DESIGN

The project demonstrated the ability to integrate fixed and temporary generator assets together to form a microgrid capable of energizing mission critical facilities from a black-start scenario. The demonstration used temporary mobile generation to form the backbone of the microgrid, and synchronized fixed generation to that backbone to distribute the sources of generation and maintain a reliable grid.

The demonstration was initiated with a utility outage. Dominion Energy, the utility provider, forced a scheduled blackout of Area 300 to start the test. The microgrid controllers automatically detected the outage and allowed the operator to initiate the process to island the microgrid. Operation was initiated from the graphical user interface by clicking on the "Enter Island" button. This process can also be performed automatically from the microgrid controllers, but for this demonstration the action was initiated manually.

Once the island was formed, the controllers maintained the microgrid without further intervention from the operator. As loads changed through the demonstration window, generators were dispatched to accommodate increasing load and curtailed as the load requirements decreased.

During the demonstration, some of the generation was marked as unavailable (simulating a scheduled maintenance period). Any unavailable generator was curtailed and not allowed to participate in the microgrid until it was marked available again. The microgrid controller automatically dispatched additional available generation as needed in these instances.

Once the demonstration period was complete, Dominion Energy reestablished normal utility power. The microgrid controllers identified the return of utility voltage and allowed the operator to exit island mode and return to utility power. Operation was initiated from the graphical user interface by clicking the "Exit Island" button. This process can also be performed automatically from the microgrid controllers, but for this demonstration the action was initiated manually.

5.1 CONCEPTUAL TEST DESIGN

The demonstration for the project was a 72-hour continuous test of the microgrid. The system was enabled and ran the processes automatically during the testing window. During the commissioning phase, prior to the demonstration, all the individual tests listed below were validated. Each test was necessary for the demonstration to run, and all the tests were executed during the demonstration.

Table 2. Test Design Tasks and Descriptions

Test Name	Description
Enter Microgrid from Black Start	The system will detect a loss of utility voltage and transition to an islanded mode, providing all power necessary for the loads within the microgrid.
Dispatch Generator	While islanded, the system will automatically handle the load and generation capacity and will dispatch additional available generation as the load increases. This may need to be triggered by marking some generators unavailable to cause other generation to be dispatched.
Curtail Generator	While islanded, the system will automatically handle the load and generation capacity and will curtail any extra sources as the load decreases.
Balance Part Loads	The system will automatically adjust the baseload output for all running fixed generators to balance the generation between the fixed and temporary generation.
Exit Microgrid to Utility	When instructed by an operator, or once utility power is restored, the system will de-energize the microgrid area and reestablish utility power.

5.2 BASELINE CHARACTERIZATION

Baseline conditions were generally not required for the test to be completed successfully and hypothesis proven. The existing baseline conditions during a utility outage were already known for the demonstration area. The buildings that have backup generators ran on their generators and all other buildings in the area were left without power.

Once the communication network was commissioned for the demonstration, the Intelligent Power Controllers installed collected basic information regarding overall power usage in the demonstration area.

Peak building power usage was already known, provided by NVESD based on historical information. This project was not designed to read power usage with building-level specificity. Overall power usage was monitored both while grid-tied and islanded.

5.3 DESIGN AND LAYOUT OF SYSTEM COMPONENTS

The system components throughout the microgrid network are detailed in the figure below. There are two Intelligent Power Controllers (IPC) that are key components in the microgrid. They communicated with each other as well as the other equipment in the microgrid to make decisions and display appropriate information to the operator.

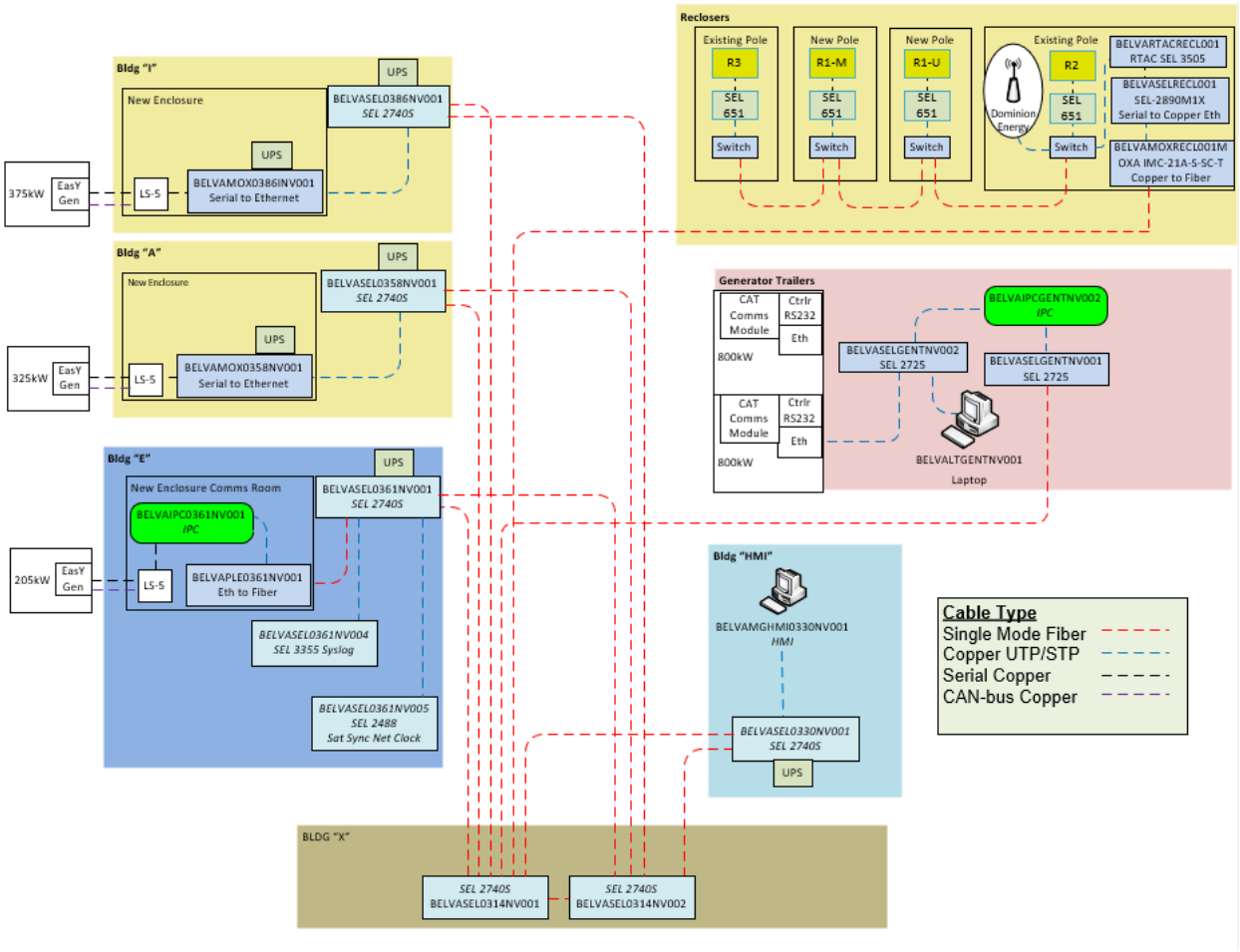

Figure 13. Network Topology Diagram

5.3.1 SIZING MOBILE POWER GENERATION TO FIXED ASSETS

The four (4) 400kW temporary mobile generators provided by the 249th EN BN were the only load-following generators in the microgrid. The three (2) fixed building generators operated in a baseload mode and received commanded output values from the GridMaster® Microgrid Control System controller to balance the load appropriately throughout the microgrid.

A single fixed generator could replace the mobile generators in the future if it was sized correctly and was integrated into the GridMaster® Microgrid Control System communication network. A replacement generator would need to overcome the substantial transient power requirements due to the large number of transformers in this section of the electrical grid. It would also need to be large enough to balance against the three (2) fixed generators to avoid back-feeding as the load in the microgrid drops. Overall, the new generator would need to meet the requirement categories laid out in section 6.4.1 Keep in mind, however, that larger is not necessarily better. A single large generator may be workable but having a few smaller generators would be ideal so to operate the generators within their recommended minimum/maximum output level (i.e., avoid "wet-stacking" the generator(s)).

Even with the consolidation of power generation (i.e. a single large generator) SCADA control e.g. the GridMaster® would still be recommended for any sophisticated automated processes. Namely, to monitor, compute, and control the various site variables such as microgrid power/load matching – power setpoints to maintain N+1 or perform load shedding operations, and other contingency handling. Furthermore, in the case of returning the utility, the microgrid controller recognizes when there is dependable utility power available, determines if the conditions are appropriate for return to grid-tied mode, and instructs the synchronizing switch relay to close (the switch will not close, of course, until the voltages and frequencies of the two grids are close enough). The ideal controller also lends itself to event diagnosis and troubleshooting capabilities.

Ultimately, one large generator could be implemented as a sort of ATS setup. However, as stated previously, the generator would need to be oversized to accommodate the one large load step out of a black start (to include transformer in-rush, which is significant at this site). This generator would also become a single point of failure for the islanded grid.

From the GridMaster® perspective, the cost of recommissioning would be roughly equivalent to the initial commissioning of the demonstrated microgrid. Essentially, once the GridMaster® is (re)commissioned for a given site, no additional upgrades are needed. However, if site equipment is changed (DERs, communications, etc.) or additional functionality is requested, there will necessarily need to be modifications to the control software.

5.4 OPERATIONAL TESTING

The test plan was divided into five distinct phases, and the goal was to test without interrupting power to the buildings whenever possible. In cases where that was not possible, testing was conducted out of hours and on weekends to minimize disruptions to the site.

The first phase of testing was subsystem testing which was completed during the installation and upgrade of all the equipment in the microgrid. This phase exercised each device individually to confirm appropriate behavior to commanded input. During this phase, the expected result from each command was validated. Outages were minimal during the generator testing, limited to minor interruptions while the ATS transferred power from utility to generator and back again.

The second testing phase validated communication between all devices. Communication ran on the fiber network of the closed restricted network, as well as between IPERC and the RTAC maintained by DE. Device communication was the baseline for all additional testing. If the IPCs could not talk to each other or to the end devices there was no point in any further testing. This testing did not require any outages and was performed during business hours.

Recloser testing was assisted by the line tension disconnect bypasses installed as part of Dominion Energy's standard procedure. The disconnect bypasses on reclosers R1-U, R1-M and R3 were closed prior to testing a recloser so that power was maintained downstream even as the recloser was opened and closed. Testing of R2 resulted in the new step up transformer being closed into the circuit, but did not result in powering or depowering any loads in the microgrid. This reduced the outage time on the grid to zero while troubleshooting potential communication issues.

As described above, generator testing for all the fixed generators was performed immediately after the easYgen controller installation since there was still a temporary generator available to back up the building loads. The generators were not permitted to connect to the utility, so further testing of the bypass contactor was delayed until the third phase of testing when the microgrid could be isolated from the utility.

The third phase of testing was a continuation of subsystem testing in the first phase. This primarily consisted of subsystem testing for the mobile generators, completed after the communication testing was complete, to confirm that they worked in concert with the IPCs.

Process tests were the fourth phase – first executed manually, then executed automatically. All process system tests required some planned outages in Area 300. These were conducted after normal working hours and on the weekends to minimize the impact of power outages within Area 300.

The fifth and final phase of testing was the 24 and 72-hour demonstrations. This required a planned outage on Area 300 when entering and existing island mode.

5.5 SAMPLING PROTOCOL

Data was collected by the Intelligent Power Controller (IPC) directly and stored in local storage while also being made available for offline data collection by an operator. To efficiently store the timestamped data, it was recorded when the data changed by a given threshold. This avoided unnecessary duplication of data that remained unchanged for long periods of time. Thresholds for data recording were determined on a point-by-point basis as some data has tighter tolerances than other data.

5.6 EQUIPMENT CALIBRATION AND DATA QUALITY ISSUES

Equipment was calibrated during the installation and retrofit work. All data collected was from built in equipment such as the newly installed reclosers, switches, and generator controllers. Some of the measurements were compared to other data measurements in other parts of the grid to ensure data quality. For example, voltage and current readings across R1-M and R1-U should have been nearly identical since there was no load between the two devices. Frequency measurements throughout the grid were compared to validate the equipment. In addition, measurements taken from the equipment while tied to the utility were compared with measurements while the microgrid was operating. These data points were recorded and stored by the IPCs when primary power was available to the controllers. Data was stored for future historical access as needed.

For more information see tabulated sampled data in Appendix D – Performance Data Sample

5.7 SAMPLING RESULTS

The following data fields were collected throughout the demonstration. Appendix D contains the tabulated results.

Table 3. Summary of Data Collected

kW	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
Frequency	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
VRMS	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
kVAR	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output

6.0 PERFORMANCE ASSESSMENT

6.1 QUANTITATIVE PERFORMANCE OBJECTIVE 1 – BLACK START

The black start objective was at the core of this project's demonstration. Keeping the black start process under 5 minutes was critical to ensuring minimal loss of base operations. To that end, many operation and verification steps were automatically executed via the IPC.

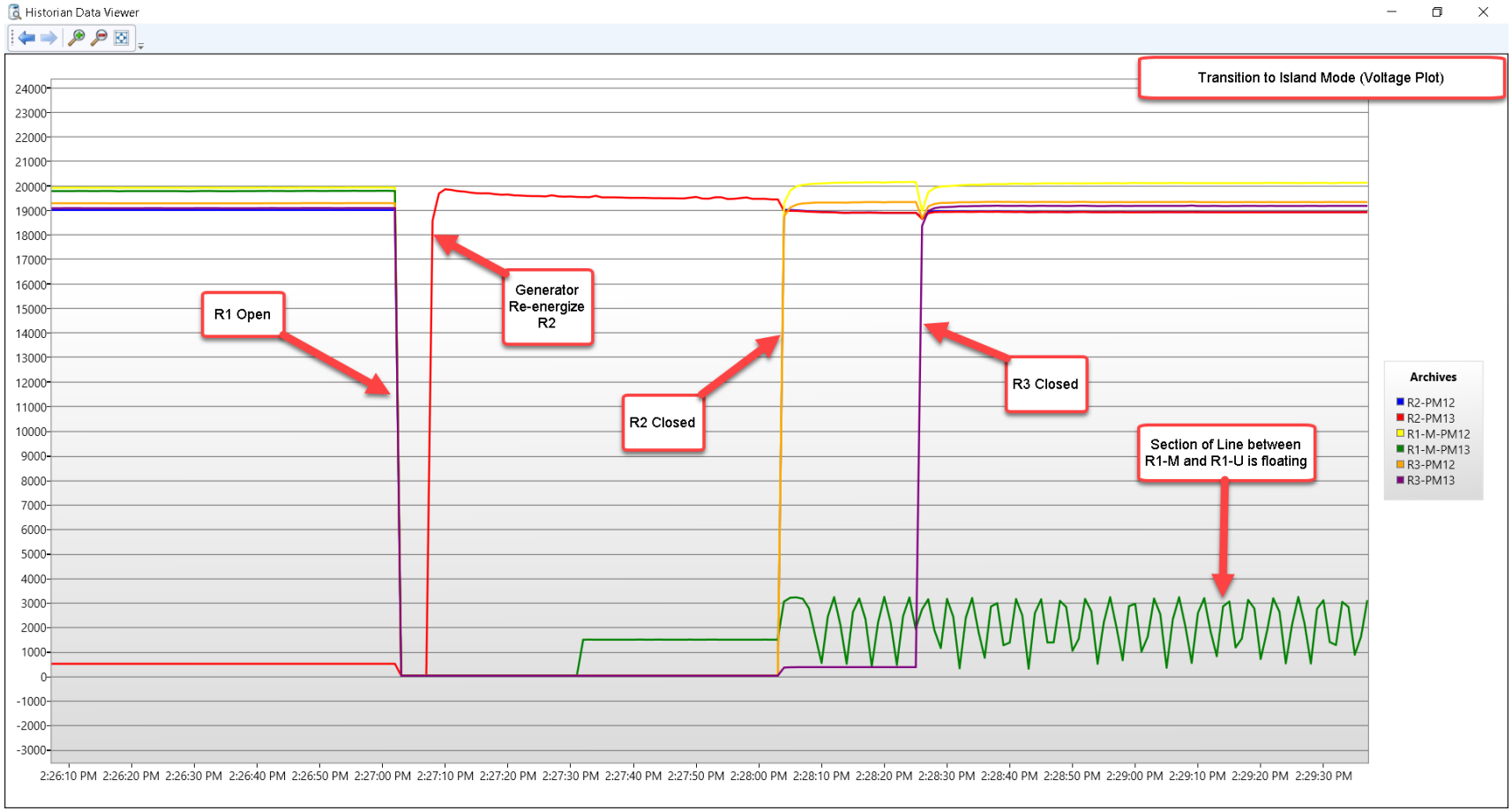

Figure 14. Transition to Island Mode (Voltage Plot)

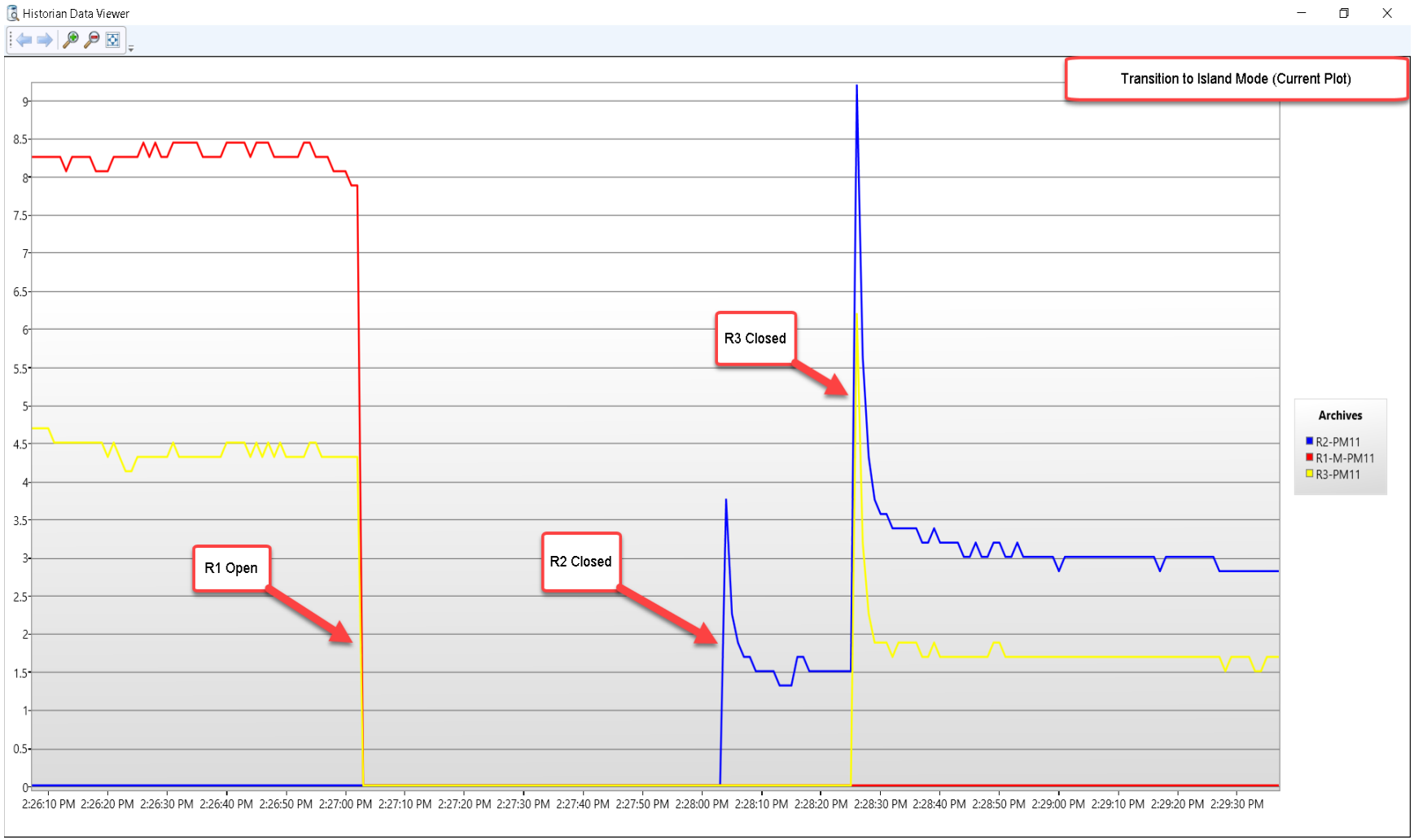

Figure 15. Transition to Island Mode (Current Plot)

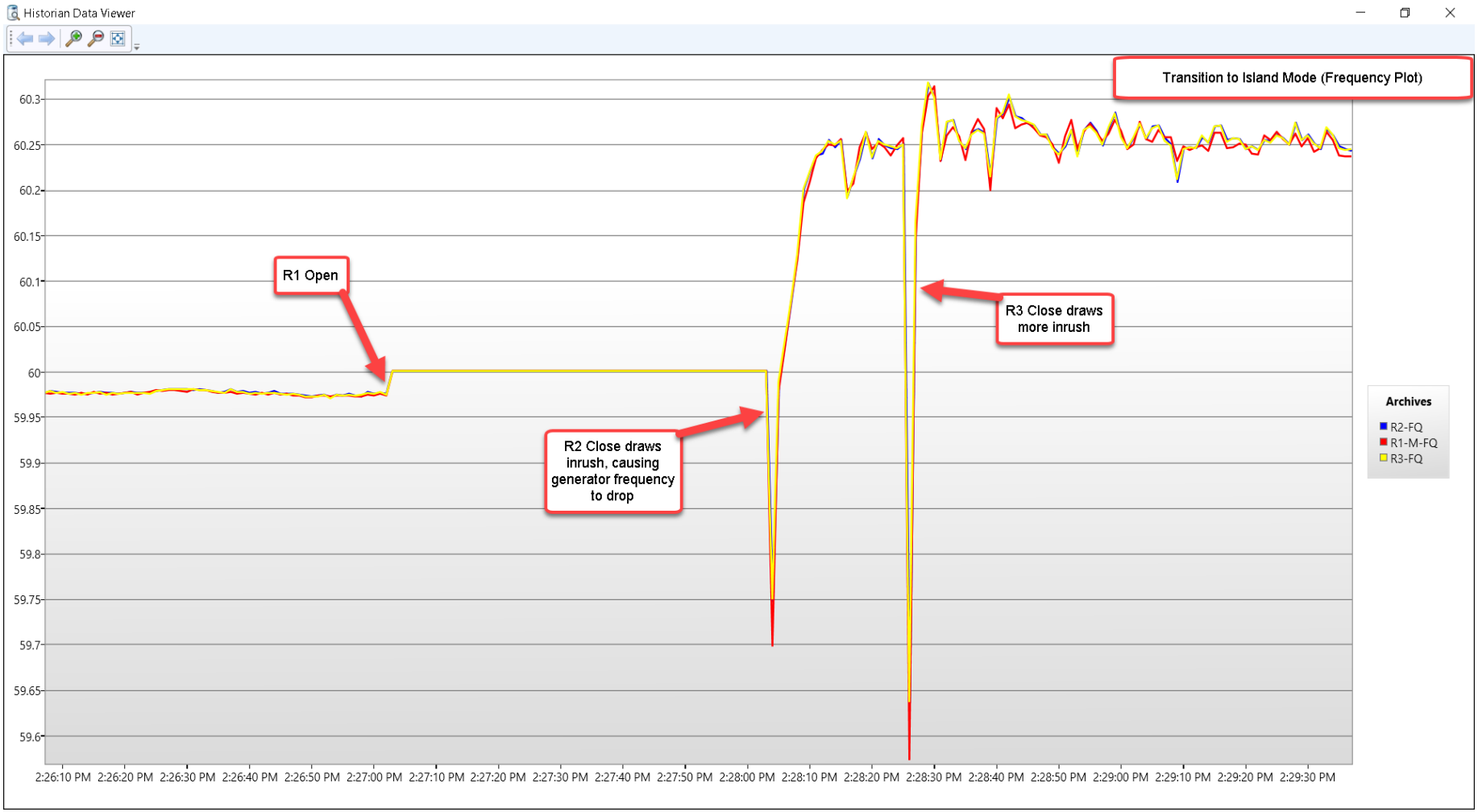

Figure 16. Transition to Island Mode (Frequency Plot)

The microgrid control system was successful in black starting the island in under the 5-minute threshold. Islanding was achieved 90 seconds after initiating the black start process from the IPC. Voltage and frequency measurements were within the operational tolerances of a traditional utility system. Load flow while islanded stayed below nominal rating of system equipment. System generation follows load demand for duration of islanding while maintaining N+1 redundancy

Please note however, that the 5-minute black start time goal is only realistic for planned operation of the microgrid due to the nature of the system's design. During an unplanned utility outage, the time to black start the microgrid would be longer because time would be needed to brief and mobilize soldiers from the 249th EN BN and Dominion Energy personnel. This is primarily because the current design of this microgrid requires soldiers on site to perform some manual operation of the mobile generators and Dominion Energy personnel to perform the manual switching on the 34.5 kV system. The 249th EN BN has provided estimates, given a similar, full mobile generator system deployment, for briefing, mobilization, and operation of the backup generators, plus running cables, setting up fuel tanks, and configuring the electrical connection to 24 to 36 hours in typical conditions. The routine response time for Dominion Energy to dispatch personnel to Fort Belvoir and perform the switching in coordination with the 249th is between 12 and 24 hours (depending on circumstances, a wide area black out, for instance, would delay response times)

6.2 QUANTITATIVE PERFORMANCE OBJECTIVE 2 – PARALLEL EXISTING BACKUP GENERATORS WITH MOBILE GENERATORS

At least 8 hours of the demonstration occurred during normal working hours of a typical workday. This demonstrated that the microgrid can parallel mobile and fixed generation assets under realistic operating scenarios when building load fluctuations occur. IPERC control system algorithms prioritized at least one of the fixed generators to keep it online even as load on the grid drops below what could be handled by both mobile generators.

The graph below illustrates the output of each generator to the Ft. Belvoir distribution system. Notably in the graph is that the mobile generators were used to follow load demand and the system backup generators were added as required. From late evening of 1/14 it can be seen that the backup generator for Building "A" was paralleled with the mobile generators and exporting power until early morning of 1/15. The system load never exceeded the combined capability of the mobile generators, but the IPC turned on additional generation in an attempt to achieve N+1 redundancy. That's the main reason why the Building "A" building generator was paralleled.

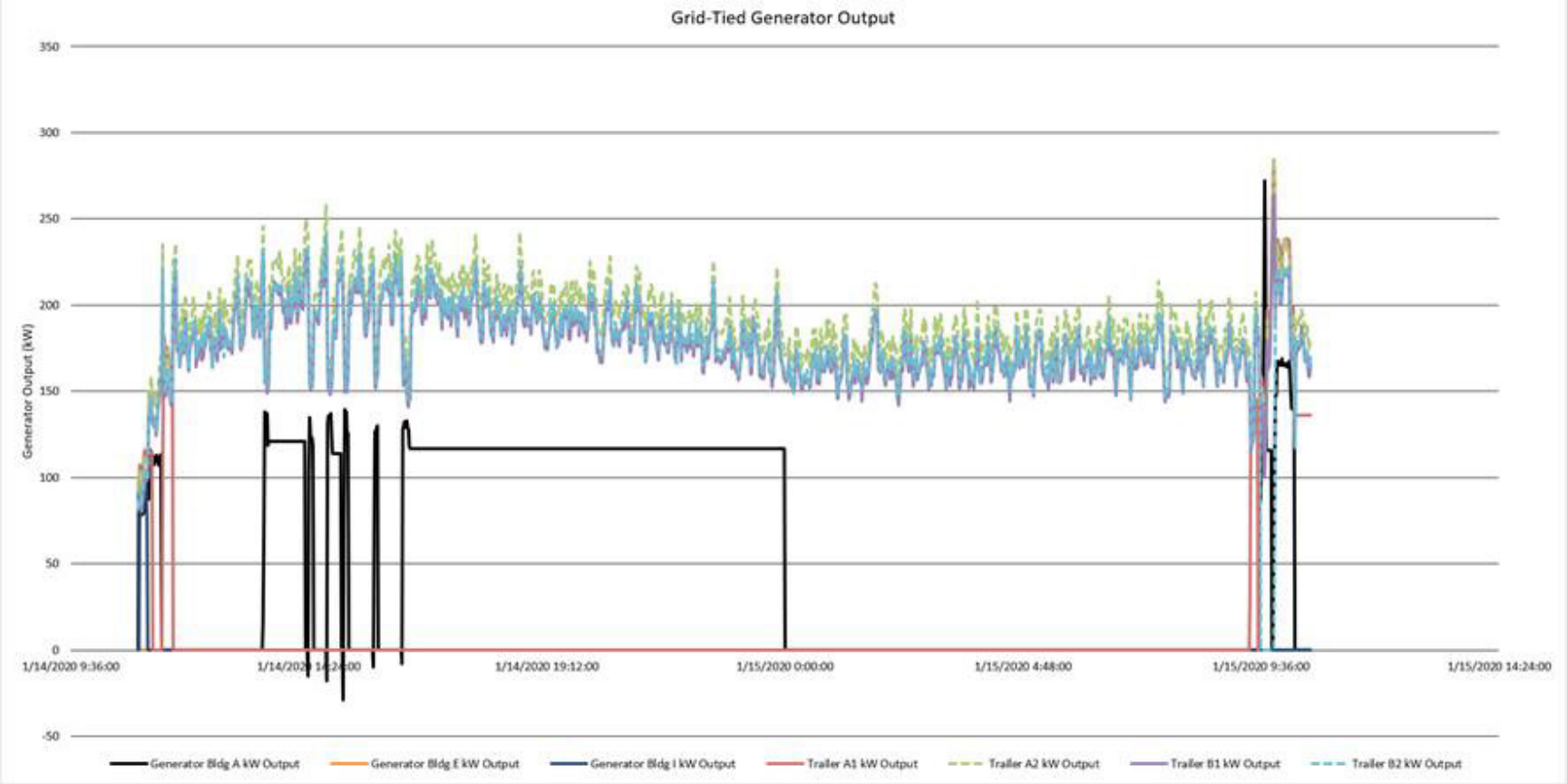

Figure 17 – Generator Output (Paralleled) in Island Mode

6.3 QUANTITATIVE PERFORMANCE OBJECTIVE 3 – POWER RELIABILITY

Improving reliability of power throughout the microgrid area is an important performance objective. Measurements of power reliability must be compared against the current baseline, which includes almost 10 buildings in the microgrid area that are completely without power during a utility outage. When the microgrid is available, power reliability will be greatly improved as the utility presence will not be required for the tenants of Area 300 to have power.

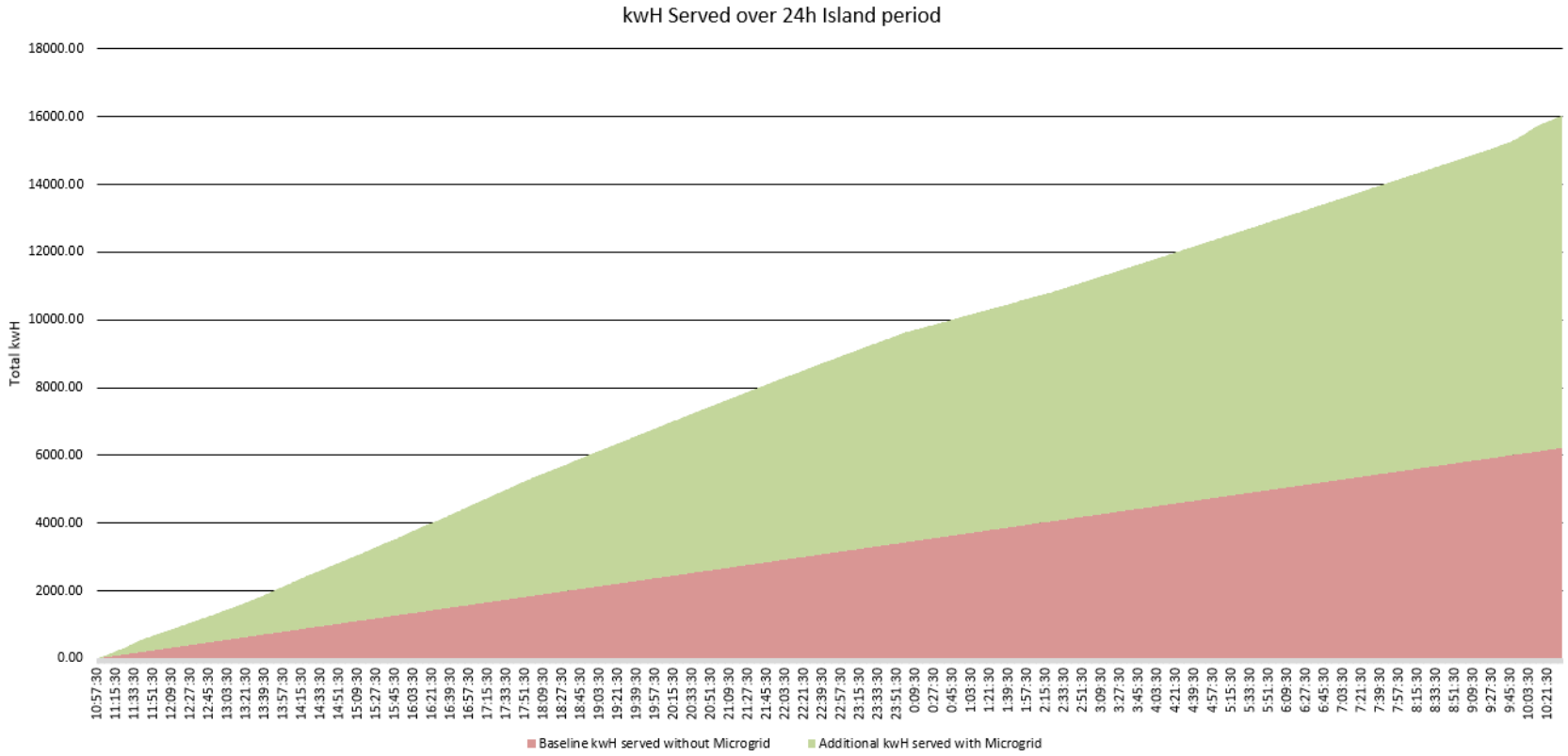

Figure 18. Area Graph of Improved Reliability for System

This is an area graph for additionally served load. The green area is the additional kWh provided during the island period and the red is the linear amount of kWh provided with the existing backup generators.

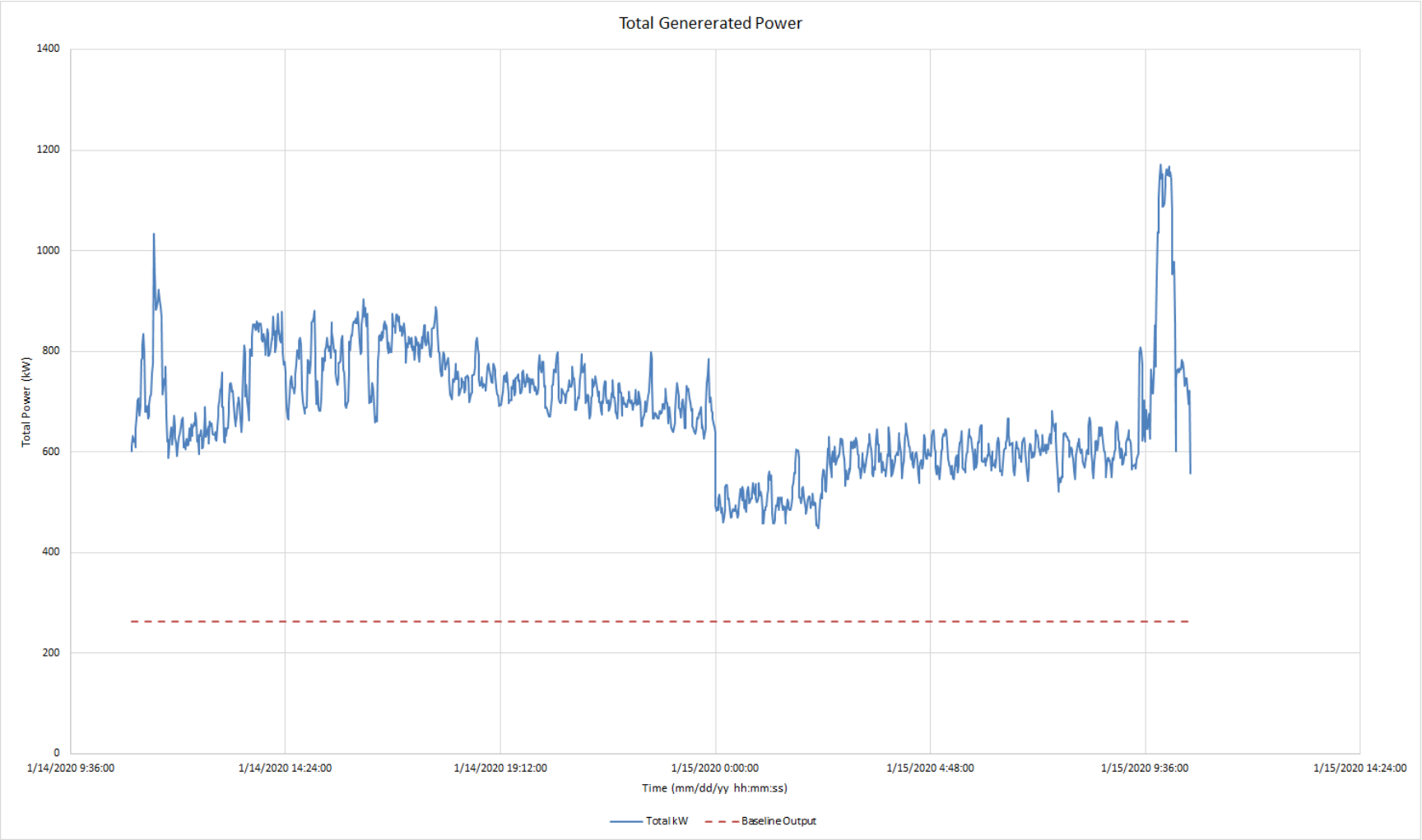

Figure 19. Illustration of Net Increase of the Demand Served

Data used – Total Gen Power Output, a "Baseline" which is the load at the ATS buildings, and then Marginal increase that is the Total output with the baseline subtracted.

6.4 QUALITATIVE PERFORMANCE OBJECTIVE 1 – DEMONSTRATE SOP AND CHECKLIST

The goal of Qualitative Objective 1 was to create SOP and checklist documentation to be used by project planners to quickly assess the viability of a microgrid (similar to that in this demonstration) across a variety of site locations and conditions. Using this checklist one can plot out existing infrastructure which is conducive to a microgrid application as well as areas which may require new hardware or retrofitting of equipment.

Check list topics include: Electrical loads, Communications, Electrical Infrastructure, Existing Generation, Generator Design, and Implementation For each topic we distilled the critical aspects for consideration: Questions, Success Criteria, Potential Challenges, and for reference the Conditions for the Ft. Belvoir Energy Security Microgrid. The final checklist can be found as Appendix B – Microgrid Evaluation Checklist

Furthermore, the following section specifically explores requirements for generators which could be substituted or added to a microgrid like this Fort Belvoir demonstration.

6.4.1 Additional Generator Requirements for a Similar Microgrid

To be compatible with this demonstrated system as-is, a substitute generator (not the EN BN 249th) would need to match the control system interface (e.g., control points and protocols) and meet or exceed the physical and power system requirements. Any generators that have a different control system interface and/or electrical parameters would require engineering consideration and possibly other GridMaster® or power system design changes before applying. With engineering effort, a wide variety of resources could be integrated.

If the generators differ from the original design, considerations must include (but are not limited to):

- Controls:
  - Control system interface of the new resources (including connection medium, addressing, protocol and point mapping)
- Electrical:
  - Generator rated kW and kVA output
  - Generator minimum and maximum continuous load levels
  - Generator pitch
  - Generator impedance
  - Generator synchronization
  - Generator protection set suitably for required generator protection, system protection, ride through, and selective coordination
  - Generator governor and exciter hardware and settings suitable for stable operation during system transients and dynamics with other system resources
  - Connection phase rotation
- Physical:
  - How connections are made (both to the power system and securely connecting to the control system)
  - Equipment size and foundation requirement

6.5 QUALITATIVE PERFORMANCE OBJECTIVE 2 – CYBER-SECURE MICROGRID

Though this was a demonstration only and is not going to be operated (therefore authorized to operate) until the future phase commissioning of a fixed-operation microgrid, an RMF package was developed.

The RMF Package accepted by the base for future Authorization to Operate includes:

- Activation/Deactivation procedures/checklist
- Network architecture, data flow and authorization boundary diagrams
- Security Categorization form
- FAT and SAT Cybersecurity checklist
- Hardware, Software, and Points, Protocols and Services Lists
- Security Policies and Procedures for each security control family
- Draft appointment letters, waivers, and Service Level Agreement (with the local Network Enterprise Center (NEC))
- Completed STIG checklists for applicable STIGs
- System Security Configuration Baseline Guide

Secure communication with Utility reclosers was coordinated with Dominion Energy and NVESD. This included testing of tunneling protocols to secure "open" industrial protocols (e.g., Modbus/TCP, DNP3) and proposed architecture and risk discussions with Dominion and NVESD. The implemented solution was to allow connection of the GridMaster® Microgrid Control System to the SEL 651 devices on a Network Interface Card (NIC) separate from the NIC used for the connection with the utility. This provides a physical air gap of the microgrid and utility networks but allows for control of the reclosers either from the microgrid or the utility.

Due to the secure nature of this information, RMF deliverables have not been provided in this public report.

6.6 QUALITATIVE PERFORMANCE OBJECTIVE 3 – ACTIVATION/DEACTIVATION FOR CYBERSECURITY MEASURES

For the security procedures for a Non-Fixed microgrid, IPERC developed Activation/Deactivation Procedures not only to activate and deactivate the microgrid in a secure manner, but also to manage RMF policies and procedures for a system that is not "always on." The plan includes roles and responsibilities, requirements for annual review of the plan, applicable references and artifacts of the plan, activation and deactivation checklists, and a log template to record these activities.

The Activation/Deactivation procedure can be found as Appendix C – Security Plan Activation

7.0 COST ASSESSMENT

The microgrid design inherently provides a cost-effective energy security solution because it leverages existing electrical infrastructure and assets. The equipment installed for the microgrid falls into four main categories. These categories are 34.5 kV equipment required to modify the existing Dominion Energy overhead system, 480 V or 208 V building electrical equipment, microgrid protection and control equipment, and generation assets. The equipment needed for upgrades to the 34.5 kV system was selected, procured and installed by Dominion Energy since it is their electrical distribution system to own and operate. Therefore, the equipment will be maintained by Dominion Energy as currently performed for other electrical equipment on their system. The equipment selected by IPERC for use in the buildings (480 V or 208 V electrical equipment) and protection and controls equipment requires minimal maintenance. Periodic maintenance will be followed per individual manufacturer recommendations. Lastly, the fixed and mobile generation assets will continue to be maintained by NVESD resources and the 249th EN BN, respectively.

7.1 COST MODEL

The table below shows data that was captured or tracked during the Demonstration, broken out by High Voltage (34.5 kV), Low Voltage (480 V and 208 V), four (4) 400 kW Mobile Generators from 249th EN, and IPERC Studies and Controls.

Table 4. Cost Model for an Energy or Water Technology

High Voltage (34.5 kV) Demonstration Costs		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware capital costs	(3) 50 kva pole mount grounding transformers, (3) 100kva pole mount grounding transformer, (4) reclosers, (1) 2000 kva step down transformer	$500,000
Installation costs	Labor and Materials	Included in Hardware

Low Voltage (480 V and 208 V) Demonstration Costs		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware capital costs	Bypass Contactors, Breakers, Natural Gas Generator Controls Retrofit, Bypass Equipment Controls	$400,000
Installation costs	Labor and Material Costs (equipment installation)	Included in Hardware
Maintenance	Since the Demonstration is over a 72-hour period, the maintenance required for equipment is assumed to be negligible. However, if unforeseen equipment maintenance is required, IPERC will record that data.	NA
Hardware lifetime	Since the Demonstration is over a 72-hour period, degradation of equipment during the Demonstration is negligible. The equipment being used is designed for use over thousands of hours.	NA

(4) 400 kW Mobile Generators from 249th EN BN		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Generator Use	Fuel, parts, and other consumable materials related to generator operation	$50,000

IPERC Microgrid Controller		
Cost Element	**Data Tracked During the Demonstration**	**Order of Magnitude Costs**
Hardware capital costs	(2) Intelligent Power Controllers (IPCs)	$350,000
Installation costs	Installation and Commissioning of Controls	
Electrical Studies	Labor	
Operator Training	Labor and Material Costs (training NVESD and Dominion)	

<u>High Voltage (34.5 kV) Demonstration Costs</u>

There was capital and labor cost associated with the 34.5 kV equipment installed by Dominion Energy. These expenses covered the Dominion Energy engineering and design work, equipment procurement, installation work, and commissioning work.

<u>Low Voltage (480 V and 208 V) Demonstration Costs</u>

There was also a capital cost for the 480V and 208V bypass contactor equipment and microgrid protection and control equipment. This equipment was installed in each of the electrical rooms in the buildings that have fixed generation assets. It enabled the fixed generators to parallel with the mobile generators to form the microgrid.

(4) 400 kW Mobile Generators from 249th EN BN

There was a cost associated with the temporary use of 249th EN BN mobile generators. However, this was essentially a one-time rental cost. It covered items such as using the generators, fueling the generators, and parts. The NVESD budget has a line item for this expense.

IPERC Microgrid Controller

The majority of the IPERC expenses were in the form of labor – use case development for the particular application, electrical studies to advise control parameters and settings, and system commissioning. Software development and electrical studies scale in cost favorably in that adding additional generators, switches, etc. can be easily accommodated once the initial component has been programmed. For example, assuming the generator controls are similar, once the first generator control software has been built, the second, third, etc. are repeatable off the first code. Commissioning however may not earn as much economy of scale. Each subsystem or component added to the microgrid effectively has a minimum amount of time that must be dedicated to communication and process testing to ensure proper operation upon project handover.

Note: IPERC did not track procurement, installation, and commissioning of communications fiber and network switches which were part of the NVESD scope and budget.

IPERC anticipates limited costs for network connection approvals, as the transport network was provided by NVESD. Approval of these connections was included in the project estimates and design reviews. As of December 2017, all required approvals had been obtained. This written approval was provided by Mr. Tom Mathis, GS-14, Deputy Director /CIO, Ft. Belvoir NEC.

7.2 COST DRIVERS

Electrical Loads - The microgrid loads need to be interconnected via a common electrical system with clear boundaries. To avoid additional cost, the microgrid loads should be grouped together electrically. The microgrid will need one or more points of isolation from the utility for islanded operation.

Communications - Separating the microgrid controls communication network from the CRN can add complexity to design, which adds cost and time to the project.

Electrical Infrastructure

- Oversizing transformers is a common practice at military installations. However, the generators may need to be oversized to handle the inrush current that occurs when black starting a microgrid with oversized transformers. Oversizing the generators may result in increased cost for the microgrid.
- Generators and other DERs have limited capacity to supply unbalanced loads. This causes thermal, mechanical, and electrical stresses. To accommodate unbalanced in loads,

equipment can be over specified or supplementary power electronics can be utilized. These requirements add costs. Alternatively, load phasing can be adjusted to rebalance.

- Space constraints may prevent microgrid equipment from being installed or have cost and schedule implications

Existing Generation - Aging equipment can be more challenging to retrofit with modern controls and can be more susceptible to break downs. If the existing generator controls do not have communication capabilities with paralleling functionality, the generators will need to be retrofitted with new controls. Emergency generators connected to automatic transfer switches typically do not have the required controls. This adds time and cost to the project.

Generator Design - Paralleling generators with mismatched pitches can cause harmonic and neutral current flow. This may result in generator overheating or damage if additional equipment is not installed to mitigate this impact.

Implementation - Tenants may not allow electrical outages. If they do, installation, testing, and commissioning may need to be performed outside of regular working hours. Temporary backup generation equipment may need to be installed during this work.

7.3 COST ANALYSIS AND COMPARISON

IPERC solicited the following sample electrical outage information from Fort Belvoir's local utility, Dominion Energy:

NVESD estimates that the impact of the 2017 outages to the 300 Compound Area was **$3,960,000** in lost productivity and repairs due to the loss of power. Had our microgrid demonstration been in operation, these costs due to loss of power would have been significantly reduced if not eliminated. With the deployment cost rough order of magnitude described in Section 7.1 of $1,300,000, the ROI for such a project is quite good, about three years.

8.0 IMPLEMENTATION ISSUES

8.1 PERMITS

The Ft. Belvoir Energy Security microgrid permits were obtained from the Ft. Belvoir Directorate of Public Works. Approximately 4 months of time was allotted to apply for and obtain permits. Underground utility location services were also performed before digging. These were coordinated directly with Virginia location services and had a lead time of approximately 2 weeks before they were performed.

8.2 EQUIPMENT PROCUREMENT

Microgrid electrical equipment is off-the-shelf equipment that is commonly available in the marketplace. Examples of this equipment include medium voltage circuit breakers, medium voltage step-up transformers, medium voltage grounding transformers, low voltage disconnect switches, and low voltage contactors. However, some of this equipment is applied in a non-traditional fashion. As a result, education was required for the local electric utility, equipment operation and maintenance personnel, microgrid operators, building tenants, and other project stakeholders to familiarize them with the equipment application.

The microgrid controller is not off-the-shelf equipment. This device must meet specific hardware, software, and cybersecurity requirements. In addition, the specific controller integrator selected should have previously demonstrated the ability to obtain an Authority to Operate with their microgrid controller at a mission critical military facility. Custom programming of the microgrid controller was required. The level of custom programming depended upon the application and specific design of the microgrid.

The mobile generators from the 249th EN BN were easy to deploy, set up, configure, and operate. This was primarily because of how they are designed to be deployed on typical missions. To connect these generators to the 34.5 kV overhead distribution system, a 4.16 kV to 34.5 kV step-up transformer was procured and installed. Underground cabling was installed from the high side of the transformer to the nearest utility pole. When replicating this on future projects, the grounding configuration of the mobile generators should be considered when specifying the set-up transformer. The grounding configuration of the mobile generators and design of the step-up transformer on Ft. Belvoir Energy Security Microgrid required that pole-mount grounding transformers be installed on the overhead 34.5 kV system. These were used to mitigate system imbalance. Without the grounding transformers, the mobile generators tripped off due to imbalance when black starting the microgrid. On future projects, the medium voltage transformer used to connect the mobile generators to the electrical distribution system should be specified as both a step-up transformer and grounding transformer so that separate pole-mount grounding transformers do not need to be installed.

8.3 SITE CONDITIONS – FUTURE CONSIDERATIONS

The existing facility infrastructure must be evaluated before designing a microgrid. Special consideration should be given to the existing electrical system topology. The system should be evaluated to identify how the loads will be interconnected, points of electrical isolation for islanding, points of sectionalizing, and locations of generation assets. Selecting the right

sectionalizing points is particularly important because of how this can impact black start and system stability when load fluctuations occur during islanded operation. Sectionalizing on the Ft. Belvoir Energy Security microgrid was accomplished by installing four (4) 34.5 kV overhead reclosers with custom programmed relays. These relays were controlled by the GridMaster® microgrid controller. During black start and island operation, the GridMaster® Microgrid Control System opened and closed these reclosers to island from the utility, successfully power microgrid loads during islanded operation, and return to grid tied operation.

If existing building generators will be used, they must be assessed to determine if they are in proper working condition to be used in the microgrid. Maintenance logs should be reviewed to ensure they have been properly serviced throughout their life. A qualified generator technician should evaluate the generators to ensure they are in proper condition prior to use in the microgrid. The generators should also be evaluated to determine if their existing controls can be used for microgrid paralleling applications. If not, they must be retrofitted with updated controls. The fixed building generators for the Ft. Belvoir Energy Security Microgrid were retrofitted with Woodward EasYgen controls since their existing controls did not have the ability to parallel with other generators and log operation events.

If the microgrid design calls for using low voltage electrical equipment, the existing building electrical facilities must be evaluated. They should be evaluated to determine if there is adequate space to install new electrical equipment, if the equipment can be easily accessed for operation and maintenance, if minimum electrical clearances can be maintained, if existing equipment can be retrofitted, and how electrical and communication connections will be made to existing equipment. Low voltage bypass contactors were installed for the Ft. Belvoir Energy Security microgrid. These were installed within electrical rooms of buildings with fixed building generators to provide the ability to parallel the fixed building generators with the 249th EN BN mobile generators. Installing this equipment proved to be challenging because of limited space in the building electrical rooms and because some existing electrical equipment was not in proper working condition.

8.4 END USER CONCERNS – TESTING AND COMMISSIONING

When implementing a microgrid at an existing military facility, the impact of installing, testing and commissioning a microgrid on an existing electrical system must be considered. Intermittent power outages are required to successfully install equipment and test the microgrid. Naturally, this is a concern for the existing facilities that are considering whether to participate because it can affect daily operations. To make matters more challenging, approval to participate in the microgrid should be obtained from all facilities in a specific geographic area because those facilities are likely to be connected via the same electrical distribution system. It is not financially practical to have one or several buildings within the microgrid electrical boundaries not participate in the microgrid because another means of supplying utility power would need to be provided to ensure they are not affected by power disruptions. The Ft. Belvoir Energy Security Microgrid building tenants were initially concerned about how the microgrid implementation work would affect them. Concerns were raised with the frequency and duration of power disruptions, especially during normal business hours. These challenges were overcome by communicating with all potential participants early in the project and explaining the details of the project. The key to obtaining buy-in from building tenants was to discuss the project, microgrid design, implications of participating, and energy security benefits associated with the project. During project planning the building participants provided input on when it would be acceptable to incur power outages.

The project schedule was then planned around these constraints. The electrical equipment was therefore installed on the weekends. Testing and commissioning work was performed between 1800 hours and 0200 hours. Great care was taken to provide frequent communications with building tenants and other stakeholders. The testing and commissioning schedule was reviewed several times with all affected stakeholders to obtain buy-in and address concerns. Prior to executing any installation, testing, or commissioning work, a detailed step-by-step execution plan was created. It was rehearsed prior to the work on site to ensure smooth execution.

APPENDIX A POINTS OF CONTACT

Point of Contact	Organization	Phone & E-mail	Role in Project
Aura Lee Keating	IPERC – S&C	auralee.keating@sandc.com	Project Investigator
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Jon Ostroski	S&C	jon.ostroski@sandc.com	Project Manager
Bob Harwig	IPERC – S&C	bob.harwig@iperc.com	Software Programmer
Kevin Brady	Ft. Belvoir - NVESD	kevin.w.brady.civ@mail.mil	POC NVESD Ft. Belvoir

APPENDIX B MICROGRID ASSESSMENT CHECKLIST

Appendix B – Microgrid Assessment Checklist

Performance Objectives - Qualitative Performance Objective 1					
Checklist to Evaluate a Military Installations Potential for a Microgrid					
#	**Checklist Item**	**Questions**	**Success Criteria**	**Potential Challenges**	**Conditions for the Ft. Belvoir Energy Security Microgrid**
1	**Electrical loads**	Are the microgrid loads grouped together? Are the loads interconnected via a common electrical system with clearly identified points of isolation from the utility?	The microgrid loads need to be interconnected via a common electrical system with clear boundaries. To avoid additional cost, the microgrid loads should be grouped together electrically. The microgrid will need one or more points of isolation from the utility for islanded operation.	The electrical system design may need to separate critical from non-critical loads while islanded. Additional sectionalizers may be needed if certain loads within the microgrid's electrical boundaries cannot participate in the microgrid. These items add cost.	The 13 buildings were interconnected via an existing 34.5 kV overhead electrical distribution system. All loads within that electrical system participated in the microgrid. Overhead reclosers were installed to provide sectionalizing and to island from the utility.
2	**Communications**	Is a low latency, high bandwith, secure communication network available for microgrid use?	Communication network is available or constructable.	Separating the microgrid controls communication network from the CRN can add complexity to design, which adds cost and time to the project.	The existing fiber optic communication network was used.
3	**Electrical Infrastructure**	Does the microgrid electrical system serve loads with oversized transformers?		Oversizing transformers is a common practice at military installations. However, the generators may need to be oversized to handle the inrush current that occurs when black starting a microgrid with oversized transformers. Oversizing the generators may result in increased cost for the microgrid.	Multiple generators were used to black start system to reduce impact on any one. Protection settings were modified to allow generators to ride-through inrush when energizing loads.
4		Does the microgrid electrical system have loads balanced evenly across all three phases?	The microgrid loads need to be as evenly distributed as possible across all three phases so that the electrical system is balanced during island operation.	Generators and other DERs have limited capacity to supply unbalanced loads. This causes thermal, mechanical, and electrical stresses. To accommodate unblance in loads, equipment can be overspecified or supplementary power electronics can be utilized. These requirements add costs. Alternatively, load phasing can be adjusted to rebalance.	System phase load balance was within generator capabilities. Three-phase loads helped ensure this criteria was met.
5		Is there space in existing electrical rooms for new electrical equipment?	There is available space in the electrical rooms of buildings to install new control, communication, or switching equipment.	Space constraints may prevent microgrid equipment from being installed or have cost and schedule implications	Several of the buildings had limited space available. This required electrical equipment to be installed in tight spaces or in neighboring rooms.
6	**Existing Generation**	If existing generators are to be used in the microgrid, what is the age and condition of the equipment?		Aging equipment can be more challenging to retrofit with modern controls and can be more susceptible to break downs.	The fixed building generators required preventative maintenance to ensure they were in a condition to participate in the microgrid.
7		If existing generators are to be used in the microgrid, do they have digital controls with generator paralleling functionality?	The generators selected for the microgrid have modern SCADA-addressable controls with generator paralleling capabilities.	If the existing generator controls do not have communication capabilities with paralleling functionality, the generators will need to be retrofitted with new controls. Emergency generators connected to automatic transfer switches typically do not have the required controls. This adds time and cost to the project.	The fixed building generators were retrofitted with modern digital controls for generator paralleling applications (i.e. Woodward EasYgen controls).
8	**Generator Design**	If multiple generators will be paralleled together, do they have the same pitch?	Each generator that is paralleled together to form the microgrid should have the same pitch.	Paralleling generators with mismatched pitches can cause harmonic and neutral current flow. This may result in generator overheating or damage if additional equipment is not installed to mitigate this impact.	All generators had the same pitch except for one of the fixed building generators. To avoid issues with this generator, it was paralleled to the others during black start for the purpose of demonstrating the microgrid, and was then promptly removed from the microgrid. This was possible because there was more than enough generation capacity to support the microgrid loads with the other generators.
9	**Implementation**	Can the load or tenants of the microgrid incur periodic power outages during installation, testing and commissioning of the microgrid?	The microgrid tenants/loads are able to take period outages during installation, testing, and commissioning of the microgrid.	Tenants may not allow electrical outages. If they do, installation, testing, and commissioning may need to be performed outside of regular working hours. Temporary backup generation equipment may need to be installed during this work.	A backup generator was rented when one of the buildings was retrofitted with electrical equipment for the microgrid. Testing had to be performed after work hours and on the weekends to minimize disruptions to building tenants. Additional planning and communication with project stakeholders was required.

APPENDIX C SECURITY ACTIVATION PLAN

Security Plan Activation and De-Activation Procedures

Fort Belvoir
Night Vision Electronic Sensors Directorate
Area 300 Energy Surety Microgrid

Prepared by: IPERC

August 29, 2018

Table of Contents

Table 1 - Revision History

Revision	Date	Name	Description
1.0	08/2018	IPERC	Initial Draft

Approval Page

_____ _____

Kevin Brady
NVESD Energy Surety Microgrid
System Owner (SO)

Date

_____ _____

Will Horner, CISSP
NVESD Energy Surety Microgrid
Information System Security Manager (ISSM)

Date

1. Purpose

The Night Vision Electronic Sensors Directorate (NVESD) Energy Surety Microgrid (ESM) is a demonstration project under the Environmental Security Technology Certification Program (ESTCP). The NVESD-ESM control system provides a means of power distribution for existing power generation as a backup to utility power for a portion of Fort Belvoir's Area 300. The NVESD-ESM control system is powered by IPERC GridMaster™ software. The system is not "always on", rather it is operated at the discretion of the Fort Belvoir NVESD. The RMF Policy & Procedures in the Security Plan detailed in the enterprise Mission Assurance Support System (eMASS) and related artifacts are only applicable during times of operation and only following the execution of this NVESD-ESM Activation and De-Activation Plan. This plan is included in the NVESD-ESM eMASS record as an artifact.

2. Scope

These procedures will be used to maintain the Ft. Belvoir NVESD-ESM System throughout its life cycle and will be maintained by the NVESD-ESM System Owner (SO) and NVESD-ESM Information System Security Manager (ISSM). This plan will be disseminated to all personnel accessing, operating or maintaining the NVESD-ESM system, including the System Owner (SO), Information System Security Manager (ISSM), Information System Security Officer (ISSO).

3. Review

This document will be reviewed at least annually and updated as required. Considerations for the review of this document include:

- System technology
- Organizational/operational environment
- Risk level
- Changes in governance or policies
- Cyberattack, security event
- Tactical orders/directives

After the NVESD-ESM Activation and De-Activation Plan is reviewed, the document will be re-signed by key stakeholders and saved as a pdf to prevent unauthorized modification. If revisions or updates are made to the document, the revision number, revision date, individual/group responsible for the revision, and revision description and detail of the change must be annotated in Table 1 - Revision History. The updated document will then be re-distributed to the all personnel accessing or operating the NVESD-ESM system upon completion of update.

4. Roles

Key cybersecurity roles and the assigned person is summarized in Table 2 - Personnel and Roles. Appointment orders are uploaded to eMASS as artifacts.

Table 2 - Personnel and Roles

Title	Point of Contact	Contact Information
System Owner (SO)	Kevin W. Brady Special Staff to the Garrison Commander for Energy and Special Projects NVESD, Operations Div.	Phone office: 703-704-3002 DSN 654-3002 Work Cell: 703-946-7418 NIPR email: kevin.w.brady.civ@mail.mil SIPR email: kevin.w.brady@us.army.smil.mil
System Administration (SA)	Bill Elliott	Phone office: DSN: Phone cell: Email: william.j.elliott60.ctr@mail.mil
Information System Security Manager (ISSM)	Will Horner, CISSP	Phone office: 703-704-2855 DSN: 654-2855 Phone cell: 703-946-7416 NIPR Email: william.h.horner4.civ@mail.mil SIPR Email: william.h.horner4.civ@mail.smil.mil
Information System Security Officer (ISSO)		
Network Administrator		

5. Management Commitment

The Fort Belvoir NVESD is fully committed to sustaining the cybersecurity of the NVESD-ESM system. This is realized through dedicated funding for maintaining the control system components and their security posture and approval of the Security Plan.

6. System Security Plan

The Security Plan is the foundational document that directs and supports all risk management activity. The Security Plan is developed using eMASS and is submitted to the Authorizing Official (AO) for signature of

approval. By using eMASS as the tool for generating the Security Plan, all the specified requirements in this security control are completed during registration of the system. The NVESD-ESM Security Plan includes Risk Management Framework (RMF) Policy and Procedure documents that are standard across the control system portfolio. These documents will be delineated by security control families and will explain how NVESD will apply the controls on the NVESD-ESM system.

The specified requirements of the eMASS control families, described in the RMF Policy and Procedure documents, will be implemented during times of NVESD-ESM operation using the references and procedures described herein.

6.1 SECURITY PLAN ACTIVATION REFERENCE

The NVESD-ESM Security Plan Activation uses the following information and artifacts for reference:

- Physical, data flow, network, and authorization boundary diagrams
- Hardware, Software, and Ports, Protocols and Services (PPS) lists
- Description of the system and components, mission, operational and geographic environment, and other information that may assist in defining the context of the system (system description field in eMASS)
- NVESD-ESM System Configuration Guide
- NVESD-ESM RMF Policy and Procedures Documents

6.2 SECURITY PLAN ACTIVATION ROLES & RESPONSIBILITIES

The SO and ISSM are primarily responsible for Security Plan Activation. They will coordinate with other roles to ensure procedures are executed to include:

- Fort Belvoir NEC, IAW the SLA
- Contingency Planning and Incident Response teams, IAW related plans
- Base Support Contractors
- NVESD Managers

7. Security Plan Activation Activities

The following tasks shall be performed when putting NVESD-ESM into operation. The NVESD-ESM Security Plan will remain in effect until the NVESD-ESM has been taken out of operation and the De-Activation activities have been performed.

Security Plan Activation Checklist:

- ☐ Notify all RMF roles and stakeholders regarding the impending operational status of NVESD-ESM
- ☐ Review all NVESD-ESM policies and procedures and take steps to implement (e.g., initial, then weekly download and review of log files)
- ☐ Ensure the system has a current Authorization to Operate (ATO)
- ☐ Perform a review of all access authorizations; update as necessary
- ☐ Ensure NVESD-ESM users and individuals with security roles are current on their security training requirements
- ☐ Perform physical walkthrough of all components to ensure physical security is still in place and the system architecture still matches the latest diagrams.
- ☐ Ensure a maintenance check is performed and logged appropriately
- ☐ Verify user and privileged accounts are still valid and update passwords; this applies to local Windows accounts and the NVESD-ESM system login credentials
- ☐ Perform Microsoft updates on the HMI
- ☐ Update HMI antivirus software and signatures
- ☐ Perform SCAP scans on the HMIs to ensure configurations remain compliant
- ☐ Perform system ACAS scans; mitigate findings
- ☐ Record Security Plan Activation in the log (see Appendix A)

8. Security Plan De-Activation Activities

- ☐ Notify all RMF roles and stakeholders regarding the impending non-operational status of NVESD-ESM
- ☐ Ensure all components, documentation, and data are physically (or logically) secure
- ☐ Record Security Plan De-Activation in the log (see Appendix A)

Appendix A: NVESD-ESM Activation/De-Activation Log

The NVESD-ESM Security Plan was activated/de-activated on the date below. All steps were completed satisfactorily.

Activation/De-Activation (circle one) Date: ____________________________________

System Owner Name:___________________________ ISSO Name: ____________________________

System Owner Signature:________________________ ISSO Signature: ____________________________

The NVESD-ESM Security Plan was activated/de-activated on the date below. All steps were completed satisfactorily.

Activation/De-Activation (circle one) Date: ____________________________________

System Owner Name:___________________________ ISSO Name: ____________________________

System Owner Signature:________________________ ISSO Signature: ____________________________

The NVESD-ESM Security Plan was activated/de-activated on the date below. All steps were completed satisfactorily.

Activation/De-Activation (circle one) Date: ____________________________________

System Owner Name:___________________________ ISSO Name: ____________________________

System Owner Signature:________________________ ISSO Signature: ____________________________

The NVESD-ESM Security Plan was activated/de-activated on the date below. All steps were completed satisfactorily.

Activation/De-Activation (circle one) Date: ____________________________________

System Owner Name:___________________________ ISSO Name: ____________________________

System Owner Signature:________________________ ISSO Signature: ____________________________

APPENDIX D PERFORMANCE DATA SAMPLE

Appendix D - Demonstration Performance Data

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/13/2020 0:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:07:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:22:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:27:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 0:57:30	59.95	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 1:02:30	59.95	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 1:07:30	59.95	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 1:12:30	59.95	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 1:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:22:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:27:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 1:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 2:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:07:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 2:12:30	59.96666667	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:17:30	59.96666667	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:22:30	59.96666667	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:27:30	59.96666667	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 2:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 2:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:07:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:12:30	60	59.95	60	60	0	0	0	0	0	0	0
1/13/2020 3:17:30	59.9	59.95	59.9	60	0	0	0	0	0	0	0
1/13/2020 3:22:30	59.9	59.95	59.9	60	0	0	0	0	0	0	0
1/13/2020 3:27:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 3:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 3:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 3:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 4:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 4:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 4:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 4:17:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 4:22:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 4:27:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 4:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
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1/13/2020 4:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
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1/13/2020 4:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 5:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
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1/13/2020 5:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 5:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 5:52:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 5:57:30	59.95	59.9	59.95	60	0	0	0	0	0	0	0
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Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
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1/13/2020 8:27:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 8:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:07:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 9:17:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 9:22:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:27:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 9:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 9:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 10:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:17:30	59.95	59.95	59.9	60	0	0	0	0	0	0	0
1/13/2020 10:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 10:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:47:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/13/2020 10:52:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 10:57:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 11:02:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/13/2020 11:07:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 11:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 11:17:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 11:22:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 11:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 11:32:30	59.96666667	59.95	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 11:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 11:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 11:47:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/13/2020 11:52:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 11:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 12:02:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/13/2020 12:07:30	59.9	59.95	59.9	60	0	0	0	0	0	0	0
1/13/2020 12:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:17:30	59.96666667	59.95	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 12:22:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:27:30	59.96666667	59.96666667	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 12:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:42:30	59.96666667	59.96666667	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 12:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 13:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 13:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 13:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 13:17:30	60	60	60	60	0	0	0	0	0	0	0
1/13/2020 13:22:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/13/2020 13:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/13/2020 13:32:30	59.96666667	59.95	59.95	60	0	54.33333333	0	0	0	0	0
1/13/2020 13:37:30	59.96666667	59.96666667	59.96666667	60	0	60.05333333	0	0	0	0	0
1/13/2020 13:42:30	59.95	59.95	59.95	60	0	59.98666667	0	0	0	0	0
1/13/2020 13:47:30	59.95	59.95	59.95	60	0	60.01	0	0	0	0	0
1/13/2020 13:52:30	59.95	59.95	59.95	60	0	60.01	0	0	0	0	0
1/13/2020 13:57:30	59.96666667	59.96666667	59.96666667	60	0	60.01	0	0	0	0	0
1/13/2020 14:02:30	59.95	59.95	59.95	60	0	60.01	0	0	0	0	0
1/13/2020 14:07:30	59.96666667	59.96666667	59.96666667	60	0	60.01	55.73666667	0	0	0	0
1/13/2020 14:12:30	59.96666667	59.96666667	59.96666667	60	0	60.01	60.02333333	0	0	0	0
1/13/2020 14:17:30	59.9	59.9	59.9	60	0	60.01	60.08666667	0	0	0	0
1/13/2020 14:22:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:27:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:32:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:37:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:42:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:47:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:52:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 14:57:30	59.9	59.9	59.9	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:02:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:07:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:12:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:17:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:22:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:27:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:32:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:37:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:42:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:47:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:52:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 15:57:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:02:30	59.96666667	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:07:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:12:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:17:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:22:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:27:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:32:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:37:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/13/2020 16:42:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:47:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:52:30	60	60	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 16:57:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:02:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:07:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:12:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:17:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:22:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:27:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:32:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:37:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:42:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:47:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:52:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 17:57:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 18:02:30	59.96666667	59.96666667	59.96666667	60	0	60.01	59.98	0	0	0	0
1/13/2020 18:07:30	59.96666667	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 18:12:30	59.95	59.95	59.95	60	0	60.01	59.98	0	0	0	0
1/13/2020 18:17:30	59.96666667	59.95	59.95	60	60.00333333	60.01	59.98	0	0	0	0
1/13/2020 18:22:30	60	59.95	60	60	59.99333333	60.01	59.98	0	0	0	0
1/13/2020 18:27:30	60	59.95	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:32:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:37:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:42:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:47:30	59.9	59.9	59.9	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:52:30	59.96666667	60	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 18:57:30	59.96666667	59.95	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:02:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:07:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:12:30	59.9	59.9	59.9	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:17:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:22:30	59.95	60	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:27:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:32:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:37:30	59.96666667	59.95	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:42:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:47:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:52:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 19:57:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:02:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:07:30	59.96666667	59.96666667	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:12:30	59.95	59.95	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:17:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:22:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:27:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:32:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:37:30	59.9	59.9	59.9	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:42:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:47:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:52:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 20:57:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:02:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:07:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:12:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:17:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:22:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:27:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:32:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:37:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:42:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:47:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:52:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 21:57:30	59.95	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:02:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:07:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:12:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:17:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:22:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:27:30	59.95	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:32:30	59.9	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:37:30	60	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:42:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:47:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:52:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 22:57:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:02:30	59.96666667	60	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:07:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:12:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:17:30	60	60	60	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:22:30	59.96666667	59.95	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:27:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:32:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:37:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:42:30	59.95	59.95	59.95	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:47:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:52:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/13/2020 23:57:30	59.96666667	59.96666667	59.96666667	60	60.005	60.01	59.98	0	0	0	0
1/14/2020 0:02:30	59.96666667	59.95	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:17:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 0:22:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 0:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:32:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 0:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 0:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 0:52:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 0:57:30	60	60	60	60	0	0	0	0	0	0	0

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/14/2020 1:02:30	59.96666667	59.95	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:07:30	59.96666667	60	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:12:30	59.96666667	60	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 1:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:42:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 1:47:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 1:52:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 1:57:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 2:02:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 2:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 2:22:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 2:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 2:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 2:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 2:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 3:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:07:30	59.95	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:12:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 3:17:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:32:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 3:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 3:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:52:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 3:57:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 4:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:07:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 4:12:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:17:30	59.96666667	60	60	60	0	0	0	0	0	0	0
1/14/2020 4:22:30	59.9	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 4:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 4:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 4:52:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 4:57:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 5:02:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 5:07:30	59.95	60	59.95	60	0	0	0	0	0	0	0
1/14/2020 5:12:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 5:17:30	59.96666667	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 5:22:30	59.95	59.95	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 5:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 5:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 5:37:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 5:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 5:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 5:52:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 5:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 6:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 6:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 6:22:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 6:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 6:52:30	60	60	60	60	0	0	0	0	0	0	0
1/14/2020 6:57:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 7:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:12:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 7:17:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:42:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 7:47:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 7:52:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 7:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:02:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 8:07:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 8:12:30	59.96666667	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 8:17:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:32:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:42:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 8:52:30	59.95	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 8:57:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:07:30	59.95	59.95	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 9:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/14/2020 9:22:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:27:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:32:30	59.9	59.9	59.9	60	0	0	0	0	0	0	0
1/14/2020 9:37:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:42:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 9:47:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:52:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 9:57:30	59.9	59.96666667	59.95	60	0	0	0	0	0	0	0
1/14/2020 10:02:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 10:07:30	59.96666667	59.96666667	59.96666667	60	0	0	0	0	0	0	0
1/14/2020 10:12:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 10:17:30	59.95	59.95	59.95	60	0	0	0	0	0	0	0
1/14/2020 10:22:30	59.95	59.95	59.95	60	0	59.08666667	0	0	0	0	0
1/14/2020 10:27:30	59.95	59.96666667	59.96666667	60	0	60.02333333	0	0	0	0	0
1/14/2020 10:32:30	59.96666667	59.96666667	59.96666667	60	0	60.05333333	0	0	0	0	0
1/14/2020 10:37:30	59.96666667	59.95	59.95	60	0	60.02333333	0	60.25	0	60.16666667	60.16666667
1/14/2020 10:42:30	59.96666667	59.96666667	59.96666667	60	0	60.03	0	60.25	0	60.16666667	60.16666667
1/14/2020 10:47:30	59.95	59.95	59.95	60	0	60.04	0	60.25	0	60.16666667	60.15
1/14/2020 10:52:30	59.96666667	59.96666667	59.96666667	60	46.01333333	60.01333333	60.9	60.3	60.4	60.16666667	60.16666667
1/14/2020 10:57:30	59.95	60.16666667	60.16666667	60	59.99666667	60.02	60.10666667	60.26666667	60.26666667	60.2	60.13333333
1/14/2020 11:02:30	59.95	60.16666667	60.16666667	60	59.99666667	60.01666667	60.15333333	60.26666667	60.26666667	60.26666667	60.16666667
1/14/2020 11:07:30	60	60.2	60.16666667	60	60.22333333	60.01	60.22666667	60.26666667	60.26666667	60.26666667	60.26666667
1/14/2020 11:12:30	60	60.23333333	60.2	60	59.98666667	60.01	60.23333333	60.26666667	60.26666667	60.26666667	60.26666667
1/14/2020 11:17:30	60	60.1	60.16666667	60	60.00333333	60	60.27	50.35	60.16666667	60.26666667	60.2
1/14/2020 11:22:30	59.96666667	60.26666667	60.16666667	60	59.98666667	60.03666667	60	50.35	60.2	60.2	60.25
1/14/2020 11:27:30	59.96666667	60.16666667	60.16666667	60	60.01	60.07666667	60.01333333	0	60.16666667	60.16666667	60.16666667
1/14/2020 11:32:30	59.96666667	60.25	60.25	60	60.01	60.02666667	60.03666667	60.26666667	60.26666667	60.26666667	60.26666667
1/14/2020 11:37:30	59.96666667	60.2	60.25	60	60.01	60	60.03666667	60.3	60.26666667	60.26666667	60.26666667
1/14/2020 11:42:30	59.96666667	60.2	60.16666667	60	0	60.04	0	60.26666667	60.26666667	60.26666667	60.26666667
1/14/2020 11:47:30	60	60.16666667	60.23333333	60	0	60.1	0	54.55	60.26666667	60.3	60.16666667
1/14/2020 11:52:30	59.9	60.1	60.16666667	60	0	59.96333333	0	54.55	60.26666667	60.26666667	60.26666667
1/14/2020 11:57:30	59.96666667	60.16666667	60.2	60	0	60.00333333	0	54.55	60.16666667	60.16666667	60.26666667
1/14/2020 12:02:30	59.95	60.16666667	60.16666667	60	0	60.02	0	54.55	60.16666667	60.16666667	60.16666667
1/14/2020 12:07:30	59.95	60.1	60.16666667	60	0	60.04	0	54.55	60.1	60.16666667	60.16666667
1/14/2020 12:12:30	59.96666667	60.16666667	60.16666667	60	0	60.07	0	54.55	60.16666667	60.16666667	60.16666667
1/14/2020 12:17:30	59.96666667	60.16666667	60.16666667	60	0	60.06666667	0	54.55	60.26666667	60.26666667	60.2
1/14/2020 12:22:30	59.95	60.16666667	60.16666667	60	0	59.97	0	54.55	60.23333333	60.26666667	60.16666667
1/14/2020 12:27:30	59.95	60.16666667	60.16666667	60	0	59.92666667	0	54.55	60.26666667	60.16666667	60.26666667
1/14/2020 12:32:30	59.95	60.16666667	60.16666667	60	0	60.06	0	54.55	60.2	60.26666667	60.23333333
1/14/2020 12:37:30	59.96666667	60.06666667	60.16666667	60	0	59.97	0	54.55	60.2	60.26666667	60.26666667
1/14/2020 12:42:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	0	54.55	60.2	60.16666667	60.26666667
1/14/2020 12:47:30	59.96666667	60.16666667	60.2	60	0	60.12333333	0	54.55	60.2	60.26666667	60.2
1/14/2020 12:52:30	59.96666667	60.16666667	60.16666667	60	0	60.06333333	0	54.55	60.26666667	60.26666667	60.16666667
1/14/2020 12:57:30	59.96666667	60.16666667	60.16666667	60	0	60.04333333	0	54.55	60.16666667	60.23333333	60.23333333
1/14/2020 13:02:30	59.96666667	60.2	60.16666667	60	0	59.93666667	0	54.55	60.26666667	60.26666667	60.26666667
1/14/2020 13:07:30	59.96666667	60.2	60.1	60	0	59.90666667	0	54.55	60.3	60.16666667	60.16666667
1/14/2020 13:12:30	59.95	60.16666667	60.16666667	60	0	60.04666667	0	54.55	60.16666667	60.16666667	60.13333333
1/14/2020 13:17:30	59.96666667	60.26666667	60.25	60	0	59.96333333	0	54.55	60.26666667	60.26666667	60.3
1/14/2020 13:22:30	59.9	60.16666667	60.13333333	60	0	60.05333333	0	54.55	60.26666667	60.16666667	60.23333333
1/14/2020 13:27:30	60	60.16666667	60.16666667	60	0	60.15333333	0	0	60.35	60.26666667	60.26666667
1/14/2020 13:32:30	60	60.23333333	60.26666667	60	0	60.04333333	60.21666667	0	60.26666667	60.26666667	60.2
1/14/2020 13:37:30	59.96666667	60.16666667	60.16666667	60	0	59.97666667	60.16333333	0	60.16666667	60.16666667	60.16666667
1/14/2020 13:42:30	59.96666667	60.16666667	60.16666667	60	0	59.97333333	60.16333333	0	60.16666667	60.16666667	60.16666667
1/14/2020 13:47:30	59.96666667	60.16666667	60.16666667	60	0	60.05	60.16333333	0	60.26666667	60.26666667	60.26666667
1/14/2020 13:52:30	59.96666667	60.26666667	60.16666667	60	0	60.02333333	60.16333333	0	60.26666667	60.26666667	60.2
1/14/2020 13:57:30	59.96666667	60.16666667	60.16666667	60	0	60.00666667	60.16333333	0	60.16666667	60.16666667	60.16666667
1/14/2020 14:02:30	59.95	60.16666667	60.16666667	60	0	60.03	60.16333333	0	60.16666667	60.23333333	60.16666667
1/14/2020 14:07:30	59.96666667	60.16666667	60.16666667	60	0	60.12333333	60.16333333	0	60.26666667	60.16666667	60.16666667
1/14/2020 14:12:30	59.95	60.16666667	60.16666667	60	0	60.04	60.16333333	0	60.26666667	60.26666667	60.2
1/14/2020 14:17:30	59.95	60.16666667	60.23333333	60	0	59.98666667	60.16333333	0	60.2	60.2	60.16666667
1/14/2020 14:22:30	60	60.16666667	60.16666667	60	0	59.98	0	0	60.16666667	60.2	60.16666667
1/14/2020 14:27:30	60	60.1	60.2	60	0	59.99333333	60.15666667	0	60.26666667	60.26666667	60.16666667
1/14/2020 14:32:30	60	60.16666667	60.16666667	60	0	60.20666667	60.22666667	0	60.1	60.2	60.23333333
1/14/2020 14:37:30	59.96666667	60.16666667	60.16666667	60	0	59.94666667	60.22666667	0	60.2	60.16666667	60.26666667
1/14/2020 14:42:30	59.96666667	60.16666667	60.16666667	60	0	60.04666667	60.22666667	0	60.2	60.2	60.2
1/14/2020 14:47:30	59.96666667	60.26666667	60.26666667	60	0	60.01666667	0	0	60.26666667	60.33333333	60.26666667
1/14/2020 14:52:30	59.96666667	60.16666667	60.16666667	60	0	60.00666667	60.23	0	60.16666667	60.2	60.16666667
1/14/2020 14:57:30	59.96666667	60.16666667	60.16666667	60	0	59.93333333	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 15:02:30	59.9	60.1	60.16666667	60	0	60.05666667	60.23	0	60.16666667	60.16666667	60.16666667
1/14/2020 15:07:30	60	60.13333333	60.16666667	60	0	60.08	0	0	60.16666667	60.16666667	60.16666667
1/14/2020 15:12:30	59.96666667	60.16666667	60.16666667	60	0	60.11	60.22666667	0	60.2	60.16666667	60.2
1/14/2020 15:17:30	59.95	60.25	60.16666667	60	0	60.02666667	60.22666667	0	60.26666667	60.26666667	60.2
1/14/2020 15:22:30	59.96666667	60.3	60.25	60	0	60.06	60.22666667	0	60.26666667	60.35	60.26666667
1/14/2020 15:27:30	59.96666667	60.16666667	60.16666667	60	0	60	60.22666667	0	60.26666667	60.35	60.2
1/14/2020 15:32:30	59.95	60.16666667	60.16666667	60	0	59.96666667	60.22666667	0	60.26666667	60.2	60.26666667
1/14/2020 15:37:30	59.96666667	60.16666667	60.16666667	60	0	59.93333333	60.22666667	0	60.1	60.16666667	60.26666667
1/14/2020 15:42:30	59.96666667	60.16666667	60.13333333	60	0	59.90333333	0	0	60.03333333	60.13333333	60.16666667
1/14/2020 15:47:30	60	60.26666667	60.26666667	60	0	59.98666667	60.28666667	0	60.26666667	60.26666667	60.26666667
1/14/2020 15:52:30	60	60.03333333	60.06666667	60	0	60.06333333	60.27333333	0	60.06666667	60	60
1/14/2020 15:57:30	59.96666667	60.16666667	60.16666667	60	0	60.01666667	60.27333333	0	60.2	60.16666667	60.1
1/14/2020 16:02:30	59.95	60.16666667	60.16666667	60	0	60.13666667	60.27333333	0	60.2	60.26666667	60.23333333
1/14/2020 16:07:30	59.96666667	60.3	60.25	60	0	59.85666667	60.27333333	0	60.35	60.35	60.35
1/14/2020 16:12:30	59.96666667	60.25	60.16666667	60	0	60.01666667	60.27333333	0	60.23333333	60.2	60.26666667
1/14/2020 16:17:30	60	60.16666667	60.16666667	60	0	59.89333333	0	0	60.2	60.16666667	60.16666667
1/14/2020 16:22:30	59.96666667	60.16666667	60.16666667	60	0	59.94	60.21	0	60.26666667	60.26666667	60.16666667
1/14/2020 16:27:30	59.96666667	60.16666667	60.13333333	60	0	59.98	60.23	0	60.2	60.16666667	60.16666667
1/14/2020 16:32:30	59.96666667	60.16666667	60.16666667	60	0	60.01333333	60.23	0	60.26666667	60.2	60.26666667
1/14/2020 16:37:30	59.96666667	60.16666667	60.16666667	60	0	59.96333333	60.23	0	60.16666667	60.26666667	60.26666667
1/14/2020 16:42:30	59.96666667	60.2	60.16666667	60	0	60.04666667	60.23	0	60.26666667	60.26666667	60.16666667
1/14/2020 16:47:30	60	60.16666667	60.16666667	60	0	60.14333333	60.23	0	60.26666667	60.26666667	60.16666667
1/14/2020 16:52:30	59.96666667	60.16666667	60.16666667	60	0	60.00666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 16:57:30	59.95	60.16666667	60.25	60	0	60.07666667	60.23	0	60.3	60.35	60.26666667
1/14/2020 17:02:30	59.96666667	60.16666667	60.2	60	0	59.97	60.23	0	60.23333333	60.26666667	60.26666667
1/14/2020 17:07:30	59.96666667	60.2	60.2	60	0	60.14	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 17:12:30	60	60.23333333	60.16666667	60	0	60.00666667	60.23	0	60.26666667	60.23333333	60.2
1/14/2020 17:17:30	59.95	60.16666667	60.16666667	60	0	60.11666667	60.23	0	60.26666667	60.26666667	60.3
1/14/2020 17:22:30	59.96666667	60.16666667	60.16666667	60	0	59.85666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 17:27:30	59.96666667	60.13333333	60.16666667	60	0	60.01	60.23	0	60.16666667	60.26666667	60.23333333
1/14/2020 17:32:30	59.96666667	60.16666667	60.16666667	60	0	60.11333333	60.23	0	60.16666667	60.16666667	60.3
1/14/2020 17:37:30	59.96666667	60.16666667	60.16666667	60	0	60.03	60.23	0	60.2	60.16666667	60.16666667

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/14/2020 17:42:30	59.95	60.16666667	60.16666667	60	0	60.06666667	60.23	0	60.16666667	60.16666667	60.26666667
1/14/2020 17:47:30	59.96666667	60.1	60.23333333	60	0	59.95	60.23	0	60.23333333	60.16666667	60.16666667
1/14/2020 17:52:30	59.96666667	60.16666667	60.16666667	60	0	60.03	60.23	0	60.26666667	60.26666667	60.3
1/14/2020 17:57:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.16666667	60.16666667
1/14/2020 18:02:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.1	60.16666667
1/14/2020 18:07:30	59.96666667	60.2	60.25	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 18:12:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.16666667	60.2
1/14/2020 18:17:30	59.96666667	60.16666667	60.25	60	0	59.95666667	60.23	0	60.26666667	60.2	60.26666667
1/14/2020 18:22:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.2	60.16666667
1/14/2020 18:27:30	59.96666667	60.16666667	60.26666667	60	0	59.95666667	60.23	0	60.26666667	60.35	60.26666667
1/14/2020 18:32:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 18:37:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.26666667
1/14/2020 18:42:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.16666667	60.2
1/14/2020 18:47:30	60	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 18:52:30	60	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.23333333	60.2	60.16666667
1/14/2020 18:57:30	59.96666667	60.25	60.16666667	60	0	59.95666667	60.23	0	60.2	60.16666667	60.16666667
1/14/2020 19:02:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 19:07:30	59.96666667	60.26666667	60.25	60	0	59.95666667	60.23	0	60.26666667	60.23333333	60.23333333
1/14/2020 19:12:30	60	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 19:17:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.16666667	60.16666667
1/14/2020 19:22:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.26666667
1/14/2020 19:27:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 19:32:30	59.9	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.2	60.16666667
1/14/2020 19:37:30	59.96666667	60.26666667	60.2	60	0	59.95666667	60.23	0	60.23333333	60.26666667	60.2
1/14/2020 19:42:30	59.96666667	60.16666667	60.3	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 19:47:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.2
1/14/2020 19:52:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.2
1/14/2020 19:57:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 20:02:30	59.96666667	60.16666667	60.23333333	60	0	59.95666667	60.23	0	60.16666667	60.2	60.16666667
1/14/2020 20:07:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.16666667	60.2
1/14/2020 20:12:30	59.96666667	60.26666667	60.16666667	60	0	59.95666667	60.23	0	60.3	60.16666667	60.3
1/14/2020 20:17:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.2	60.16666667
1/14/2020 20:22:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.26666667
1/14/2020 20:27:30	59.96666667	60.16666667	60.2	60	0	59.95666667	60.23	0	60.2	60.26666667	60.26666667
1/14/2020 20:32:30	59.95	60.2	60.25	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 20:37:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.16666667	60.16666667
1/14/2020 20:42:30	59.96666667	60.25	60.15	60	0	59.95666667	60.23	0	60.16666667	60.13333333	60.26666667
1/14/2020 20:47:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.23333333	60.16666667
1/14/2020 20:52:30	59.96666667	60.23333333	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.3
1/14/2020 20:57:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.2	60.16666667
1/14/2020 21:02:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.06666667	60.06666667	60.16666667
1/14/2020 21:07:30	59.9	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.26666667
1/14/2020 21:12:30	60	60.15	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.16666667
1/14/2020 21:17:30	59.95	60.13333333	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.16666667
1/14/2020 21:22:30	59.95	60.25	60.16666667	60	0	59.95666667	60.23	0	60.23333333	60.2	60.2
1/14/2020 21:27:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.2	60.16666667
1/14/2020 21:32:30	59.96666667	60.16666667	60.13333333	60	0	59.95666667	60.23	0	60.2	60.16666667	60.2
1/14/2020 21:37:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.2	60.26666667
1/14/2020 21:42:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.23333333
1/14/2020 21:47:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.16666667
1/14/2020 21:52:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.23333333	60.26666667	60.26666667
1/14/2020 21:57:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.2	60.16666667
1/14/2020 22:02:30	59.96666667	60.16666667	60.2	60	0	59.95666667	60.23	0	60.2	60.2	60.16666667
1/14/2020 22:07:30	59.9	60.25	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 22:12:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.23333333
1/14/2020 22:17:30	59.96666667	60.25	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.35	60.26666667
1/14/2020 22:22:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.26666667
1/14/2020 22:27:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.2	60.26666667
1/14/2020 22:32:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.2
1/14/2020 22:37:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.26666667	60.2
1/14/2020 22:42:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 22:47:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.26666667
1/14/2020 22:52:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.16666667	60.26666667
1/14/2020 22:57:30	59.96666667	60.2	60.1	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.16666667
1/14/2020 23:02:30	59.95	60.16666667	60.2	60	0	59.95666667	60.23	0	60.16666667	60.16666667	60.26666667
1/14/2020 23:07:30	59.95	60.06666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.2
1/14/2020 23:12:30	59.96666667	60.16666667	60.26666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.2
1/14/2020 23:17:30	59.95	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.23333333	60.16666667	60.13333333
1/14/2020 23:22:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.26666667	60.26666667
1/14/2020 23:27:30	59.96666667	60.2	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.25	60.25
1/14/2020 23:32:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.2	60.3	60.2
1/14/2020 23:37:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.16666667	60.26666667	60.16666667
1/14/2020 23:42:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.23333333	60.16666667	60.16666667
1/14/2020 23:47:30	59.96666667	60.25	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.3	60.23333333
1/14/2020 23:52:30	59.96666667	60.16666667	60.16666667	60	0	59.95666667	60.23	0	60.26666667	60.16666667	60.26666667
1/14/2020 23:57:30	59.95	60.2	60.16666667	60	0	59.95666667	60.23	0	60.2	60.16666667	60.26666667
1/15/2020 0:02:30	59.95	60.16666667	60.2	60	0	0	0	0	60.26666667	60.25	60.16666667
1/15/2020 0:07:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.16666667	60.16666667
1/15/2020 0:12:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.16666667	60.26666667
1/15/2020 0:17:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.23333333	60.25	60.16666667
1/15/2020 0:22:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.4	60.36666667	60.4
1/15/2020 0:27:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.16666667	60.16666667	60.25
1/15/2020 0:32:30	59.95	60.25	60.2	60	0	0	0	0	60.26666667	60.16666667	60.16666667
1/15/2020 0:37:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.2	60.26666667
1/15/2020 0:42:30	59.96666667	60.2	60.1	60	0	0	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 0:47:30	59.96666667	60.16666667	60.15	60	0	0	0	0	60.26666667	60.16666667	60.26666667
1/15/2020 0:52:30	59.96666667	60.2	60.16666667	60	0	0	0	0	60.16666667	60.16666667	60.2
1/15/2020 0:57:30	59.95	60.16666667	60.16666667	60	0	0	0	0	60.3	60.26666667	60.26666667
1/15/2020 1:02:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.16666667	60.2	60.3
1/15/2020 1:07:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.26666667	60.16666667	60.16666667
1/15/2020 1:12:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.13333333	60.2	60.1
1/15/2020 1:17:30	59.96666667	60.16666667	60.26666667	60	0	0	0	0	60.2	60.26666667	60.3
1/15/2020 1:22:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.16666667	60.26666667
1/15/2020 1:27:30	59.96666667	60.2	60.16666667	60	0	0	0	0	60.3	60.26666667	60.2
1/15/2020 1:32:30	59.96666667	60.2	60.2	60	0	0	0	0	60.16666667	60.2	60.2
1/15/2020 1:37:30	59.96666667	60.25	60.25	60	0	0	0	0	60.2	60.26666667	60.35
1/15/2020 1:42:30	59.95	60.16666667	60.16666667	60	0	0	0	0	60.26666667	60.26666667	60.2
1/15/2020 1:47:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.2	60.16666667
1/15/2020 1:52:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.16666667	60.16666667	60.3
1/15/2020 1:57:30	59.95	60.16666667	60.16666667	60	0	0	0	0	60.26666667	60.16666667	60.16666667

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/15/2020 2:02:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.2	60.16666667	60.2
1/15/2020 2:07:30	59.96666667	60.16666667	60.25	60	0	0	0	0	60.26666667	60.16666667	60.26666667
1/15/2020 2:12:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.16666667	60.16666667	60.26666667
1/15/2020 2:17:30	59.96666667	60.23333333	60.2	60	0	0	0	0	60.16666667	60.16666667	60.26666667
1/15/2020 2:22:30	59.96666667	60.16666667	60.16666667	60	0	0	0	0	60.16666667	60.26666667	60.2
1/15/2020 2:27:30	59.96666667	60.16666667	60.16666667	60	0	51.46	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 2:32:30	59.9	60.16666667	60.16666667	60	0	59.56333333	0	0	60.16666667	60.26666667	60.26666667
1/15/2020 2:37:30	59.95	60.2	60.26666667	60	0	60.01333333	0	0	60.26666667	60.26666667	60.2
1/15/2020 2:42:30	60	60.16666667	60.16666667	60	0	59.90333333	0	0	60.26666667	60.16666667	60.16666667
1/15/2020 2:47:30	59.95	60.16666667	60.16666667	60	0	60.10333333	0	0	60.26666667	60.13333333	60.16666667
1/15/2020 2:52:30	59.95	60.2	60.16666667	60	0	59.99666667	0	0	60.26666667	60.26666667	60.16666667
1/15/2020 2:57:30	59.96666667	60.16666667	60.16666667	60	0	60.01666667	0	0	60.2	60.26666667	60.2
1/15/2020 3:02:30	59.9	60.16666667	60.16666667	60	0	60.00666667	0	0	60.16666667	60.2	60.16666667
1/15/2020 3:07:30	59.96666667	60.16666667	60.16666667	60	0	60.04333333	0	0	60.2	60.16666667	60.16666667
1/15/2020 3:12:30	59.96666667	60.16666667	60.16666667	60	0	59.97666667	0	0	60.2	60.16666667	60.16666667
1/15/2020 3:17:30	59.96666667	60.16666667	60.16666667	60	0	59.95333333	0	0	60.2	60.26666667	60.16666667
1/15/2020 3:22:30	59.95	60.25	60.16666667	60	0	60.05	0	0	60.26666667	60.26666667	60.3
1/15/2020 3:27:30	59.95	60.16666667	60.16666667	60	0	60.07333333	0	0	60.2	60.16666667	60.16666667
1/15/2020 3:32:30	59.95	60.16666667	60.16666667	60	0	60.02	0	0	60.16666667	60.2	60.16666667
1/15/2020 3:37:30	59.95	60.25	60.16666667	60	0	59.94666667	0	0	60.26666667	60.26666667	60.3
1/15/2020 3:42:30	59.95	60.16666667	60.16666667	60	0	60.03	0	0	60.23333333	60.1	60.2
1/15/2020 3:47:30	59.96666667	60.16666667	60.25	60	0	60.02666667	0	0	60.2	60.16666667	60.2
1/15/2020 3:52:30	59.95	60.16666667	60.16666667	60	0	59.96333333	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 3:57:30	59.95	60.3	60.2	60	0	60.02666667	0	0	60.26666667	60.33333333	60.3
1/15/2020 4:02:30	59.9	60.16666667	60.16666667	60	0	59.92	0	0	60.16666667	60.16666667	60.2
1/15/2020 4:07:30	60	60.25	60.16666667	60	0	60.12	0	0	60.26666667	60.3	60.23333333
1/15/2020 4:12:30	59.95	60.16666667	60.16666667	60	0	60.05	0	0	60.23333333	60.3	60.2
1/15/2020 4:17:30	59.96666667	60.16666667	60.16666667	60	0	60.06333333	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 4:22:30	59.96666667	60.2	60.16666667	60	0	59.97333333	0	0	60.23333333	60.26666667	60.26666667
1/15/2020 4:27:30	59.96666667	60.16666667	60.16666667	60	0	59.98333333	0	0	60.2	60.2	60.2
1/15/2020 4:32:30	59.96666667	60.16666667	60.16666667	60	0	60.03666667	0	0	60.2	60.16666667	60.2
1/15/2020 4:37:30	59.96666667	60.16666667	60.16666667	60	0	60.02	0	0	60.16666667	60.26666667	60.26666667
1/15/2020 4:42:30	59.95	60.25	60.16666667	60	0	59.97	0	0	60.26666667	60.26666667	60.16666667
1/15/2020 4:47:30	59.96666667	60.16666667	60.16666667	60	0	59.99666667	0	0	60.16666667	60.16666667	60.26666667
1/15/2020 4:52:30	59.96666667	60.16666667	60.16666667	60	0	59.94333333	0	0	60.16666667	60.26666667	60.16666667
1/15/2020 4:57:30	59.96666667	60.2	60.25	60	0	59.97666667	0	0	60.26666667	60.26666667	60.16666667
1/15/2020 5:02:30	59.96666667	60.16666667	60.16666667	60	0	60.03666667	0	0	60.2	60.16666667	60.26666667
1/15/2020 5:07:30	59.95	60.16666667	60.16666667	60	0	59.97666667	0	0	60.16666667	60.16666667	60.2
1/15/2020 5:12:30	60	60.2	60.16666667	60	0	59.99333333	0	0	60.2	60.26666667	60.26666667
1/15/2020 5:17:30	59.95	60.25	60.2	60	0	60.00333333	0	0	60.26666667	60.16666667	60.16666667
1/15/2020 5:22:30	59.9	60.16666667	60.16666667	60	0	59.98333333	0	0	60.2	60.16666667	60.2
1/15/2020 5:27:30	59.9	60.26666667	60.16666667	60	0	60.02333333	0	0	60.26666667	60.2	60.2
1/15/2020 5:32:30	59.96666667	60.16666667	60.2	60	0	60.04666667	0	0	60.16666667	60.16666667	60.26666667
1/15/2020 5:37:30	59.96666667	60.16666667	60.16666667	60	0	60.09	0	0	60.16666667	60.26666667	60.2
1/15/2020 5:42:30	59.95	60.16666667	60.16666667	60	0	59.99	0	0	60.2	60.06666667	60.06666667
1/15/2020 5:47:30	59.95	60.16666667	60.16666667	60	0	59.98333333	0	0	60.2	60.26666667	60.16666667
1/15/2020 5:52:30	59.96666667	60.16666667	60.23333333	60	0	60.01666667	0	0	60.26666667	60.2	60.26666667
1/15/2020 5:57:30	59.96666667	60.16666667	60.13333333	60	0	60.05666667	0	0	60.16666667	60.2	60.16666667
1/15/2020 6:02:30	59.96666667	60.16666667	60.16666667	60	0	59.98666667	0	0	60.16666667	60.2	60.26666667
1/15/2020 6:07:30	59.95	60.16666667	60.16666667	60	0	60	0	0	60.26666667	60.16666667	60.16666667
1/15/2020 6:12:30	59.96666667	60.16666667	60.2	60	0	60.02	0	0	60.26666667	60.26666667	60.26666667
1/15/2020 6:17:30	59.9	60.16666667	60.16666667	60	0	60.05	0	0	60.2	60.16666667	60.16666667
1/15/2020 6:22:30	59.95	60.16666667	60.16666667	60	0	60.03	0	0	60.2	60.16666667	60.16666667
1/15/2020 6:27:30	59.95	60.2	60.16666667	60	0	60.07333333	0	0	60.16666667	60.2	60.26666667
1/15/2020 6:32:30	59.96666667	60.16666667	60.1	60	0	60.12333333	0	0	60.26666667	60.26666667	60.16666667
1/15/2020 6:37:30	59.96666667	60.16666667	60.23333333	60	0	60.00666667	0	0	60.26666667	60.16666667	60.26666667
1/15/2020 6:42:30	59.96666667	60.25	60.16666667	60	0	59.99666667	0	0	60.26666667	60.26666667	60.16666667
1/15/2020 6:47:30	59.96666667	60.16666667	60.16666667	60	0	59.97666667	0	0	60.26666667	60.2	60.2
1/15/2020 6:52:30	59.95	60.16666667	60.16666667	60	0	60.06333333	0	0	60.16666667	60.16666667	60.2
1/15/2020 6:57:30	59.95	60.2	60.2	60	0	60.02	0	0	60.26666667	60.2	60.2
1/15/2020 7:02:30	59.95	60.16666667	60.16666667	60	0	59.94666667	0	0	60.26666667	60.26666667	60.26666667
1/15/2020 7:07:30	59.95	60.16666667	60.16666667	60	0	60.06666667	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 7:12:30	59.96666667	60.16666667	60.16666667	60	0	60.02	0	0	60.16666667	60.16666667	60.1
1/15/2020 7:17:30	60	60.16666667	60.16666667	60	0	59.92	0	0	60.26666667	60.2	60.26666667
1/15/2020 7:22:30	59.95	60.16666667	60.16666667	60	0	60.05	0	0	60.2	60.26666667	60.26666667
1/15/2020 7:27:30	59.96666667	60.25	60.16666667	60	0	60.09333333	0	0	60.23333333	60.3	60.26666667
1/15/2020 7:32:30	59.96666667	60.2	60.16666667	60	0	60.04333333	0	0	60.26666667	60.2	60.16666667
1/15/2020 7:37:30	59.96666667	60.16666667	60.16666667	60	0	60.05	0	0	60.2	60.26666667	60.26666667
1/15/2020 7:42:30	59.95	60.16666667	60.16666667	60	0	60.03	0	0	60.23333333	60.35	60.26666667
1/15/2020 7:47:30	59.95	60.16666667	60.16666667	60	0	60.07666667	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 7:52:30	59.9	60.16666667	60.16666667	60	0	60.01	0	0	60.2	60.16666667	60.2
1/15/2020 7:57:30	60	60.3	60.16666667	60	0	60.09666667	0	0	60.16666667	60.23333333	60.2
1/15/2020 8:02:30	59.95	60.16666667	60.16666667	60	0	60.08666667	0	0	60.16666667	60.26666667	60.3
1/15/2020 8:07:30	59.96666667	60.16666667	60.16666667	60	0	60.11	0	0	60.3	60.16666667	60.2
1/15/2020 8:12:30	59.96666667	60.16666667	60.16666667	60	0	59.95	0	0	60.2	60.26666667	60.26666667
1/15/2020 8:17:30	59.96666667	60.13333333	60.16666667	60	0	60.04666667	0	0	60.2	60.26666667	60.16666667
1/15/2020 8:22:30	59.95	60.16666667	60.16666667	60	0	60.05333333	0	0	60.16666667	60.2	60.16666667
1/15/2020 8:27:30	59.96666667	60.2	60.16666667	60	0	60.06	0	0	60.26666667	60.26666667	60.2
1/15/2020 8:32:30	59.95	60.16666667	60.16666667	60	0	60.01666667	0	0	60.16666667	60.16666667	60.16666667
1/15/2020 8:37:30	59.95	60.16666667	60.16666667	60	0	60.06666667	0	0	60.2	60.2	60.2
1/15/2020 8:42:30	59.95	60.16666667	60.16666667	60	0	59.91333333	0	0	60.3	60.16666667	60.2
1/15/2020 8:47:30	59.96666667	60.16666667	60.16666667	60	0	60.03666667	0	0	60.16666667	60.16666667	60.1
1/15/2020 8:52:30	59.96666667	60.16666667	60.2	60	0	59.95666667	0	0	60.2	60.16666667	60.26666667
1/15/2020 8:57:30	59.95	60.16666667	60.16666667	60	0	60.01	0	0	60.2	60.16666667	60.26666667
1/15/2020 9:02:30	59.95	60.16666667	60.2	60	0	59.96666667	0	0	60.26666667	60.23333333	60.3
1/15/2020 9:07:30	59.96666667	60.16666667	60.2	60	0	60.10666667	0	0	60.2	60.26666667	60.26666667
1/15/2020 9:12:30	59.96666667	60.16666667	60.16666667	60	0	60.02333333	0	0	60.23333333	60.16666667	60.26666667
1/15/2020 9:17:30	59.95	60.16666667	60.16666667	60	0	60.13666667	0	60.35	60.3	60.16666667	60.26666667
1/15/2020 9:22:30	59.96666667	60.16666667	60.16666667	60	0	60.03	0	60.26666667	60.16666667	60.16666667	60.2
1/15/2020 9:27:30	59.9	60.2	60.16666667	60	0	60.03333333	0	60.26666667	60.26666667	60.26666667	60.26666667
1/15/2020 9:32:30	59.96666667	60.26666667	60.16666667	60	0	60.05333333	0	56.6	60.16666667	60.16666667	60.13333333
1/15/2020 9:37:30	59.96666667	60.16666667	60.13333333	60	0	60.01666667	60.04333333	0	60.2	60.2	60.2
1/15/2020 9:42:30	59.96666667	60.23333333	60.2	60	0	60.05666667	60.20666667	60.16666667	60.26666667	60.26666667	60.16666667
1/15/2020 9:47:30	59.96666667	60.26666667	60.26666667	60	0	60.04333333	60.20666667	60.26666667	60.26666667	60.26666667	60.16666667
1/15/2020 9:52:30	59.96666667	60.2	60.16666667	60	0	60.03666667	0	60.16666667	60.33333333	60.2	0
1/15/2020 9:57:30	59.96666667	60.16666667	60.13333333	60	0	59.95666667	60.26333333	60.16666667	60.26666667	60.26666667	60.26666667
1/15/2020 10:02:30	59.96666667	60.2	60.26666667	60	0	60.09666667	60.27666667	60.26666667	60.26666667	60.26666667	60.26666667
1/15/2020 10:07:30	59.96666667	60.16666667	60.26666667	60	0	59.98333333	60.26	60.26666667	60.26666667	60.26666667	60.26666667
1/15/2020 10:12:30	59.96666667	60.3	60.26666667	60	0	59.98666667	60.24333333	60.26666667	60.26666667	60.26666667	60.26666667
1/15/2020 10:17:30	60	60.23333333	60.3	60	0	60.14666667	60.23333333	60.26666667	60.16666667	60.16666667	60.26666667

Date	R1-U Frequency	R1-M Frequency	R2 Frequency	R3 Frequency	Generator-Bldg-"I" Frequency	Generator-Bldg-"E" Frequency	Generator-Bldg-"A" Frequency	Generator-Trailer-A1 Frequency	Generator-Trailer-A2 Frequency	Generator-Trailer-B1 Frequency	Generator-Trailer-B2 Frequency
1/15/2020 10:22:30	59.96666667	60.16666667	60.16666667	60	0	60.07333333	60.23333333	0	60.16666667	60.16666667	60.16666667
1/15/2020 10:27:30	59.96666667	60.16666667	60.16666667	60	0	60.02666667	60.23333333	0	60.2	60.1	60.16666667
1/15/2020 10:32:30	59.96666667	60.23333333	60.16666667	60	0	60.18333333	61.55	0	60.2	60.2	60.16666667
1/15/2020 10:37:30	59.96666667	60.15	60.16666667	60	60.01333333	60.13333333	60.06333333	0	60.2	60.46666667	60.16666667
1/15/2020 10:42:30	59.96666667	59.96666667	59.96666667	60	60.01	60.06666667	60.01	0	0	60.16666667	60.16666667
1/15/2020 10:47:30	59.96666667	59.96666667	59.96666667	60	59.97666667	60.08333333	60.01	0	0	60.16666667	0
1/15/2020 10:52:30	59.96666667	59.96666667	59.96666667	60	60.01666667	60.01	60.02333333	0	0	60.16666667	0
1/15/2020 10:57:30	59.96666667	59.96666667	59.96666667	60	60	59.96333333	60.02333333	0	0	60.16666667	0
1/15/2020 11:02:30	59.95	59.95	59.95	60	60.08333333	60.01	60.00333333	0	0	60.16666667	0
1/15/2020 11:07:30	60	60	60	60	59.99666667	60.05333333	60.02	0	0	60.16666667	0
1/15/2020 11:12:30	59.96666667	59.96666667	59.96666667	60	59.99	60.05	60.00666667	0	0	60.16666667	0
1/15/2020 11:17:30	59.96666667	59.96666667	59.96666667	60	0	59.92666667	0	0	0	60.16666667	0
1/15/2020 11:22:30	59.96666667	59.96666667	59.96666667	60	0	60.00333333	0	0	0	60.16666667	0
1/15/2020 11:27:30	59.96666667	59.96666667	59.96666667	60	0	60.06666667	0	0	0	60.16666667	0

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/13/2020 0:02:30	-41.5	-85.33333333	0	-80	0	0	0	0	0	0	0
1/13/2020 0:07:30	-41.5	-92	0	-95.5	0	0	0	0	0	0	0
1/13/2020 0:12:30	-40.5	-86	0	-86.5	0	0	0	0	0	0	0
1/13/2020 0:17:30	-40.5	-84	0	-76.66666667	0	0	0	0	0	0	0
1/13/2020 0:22:30	-37	-76.66666667	0	-81.33333333	0	0	0	0	0	0	0
1/13/2020 0:27:30	-46	-97.66666667	0	-99	0	0	0	0	0	0	0
1/13/2020 0:32:30	-43	-91	0	-92	0	0	0	0	0	0	0
1/13/2020 0:37:30	-43	-84	0	-78	0	0	0	0	0	0	0
1/13/2020 0:42:30	-39.5	-72.66666667	0	-74	0	0	0	0	0	0	0
1/13/2020 0:47:30	-39.5	-72.66666667	0	-91	0	0	0	0	0	0	0
1/13/2020 0:52:30	-37	-85.5	0	-89	0	0	0	0	0	0	0
1/13/2020 0:57:30	-28	-61.5	0	-70	0	0	0	0	0	0	0
1/13/2020 1:02:30	-43.5	-74.66666667	0	-82.66666667	0	0	0	0	0	0	0
1/13/2020 1:07:30	-43.5	-96	0	-94	0	0	0	0	0	0	0
1/13/2020 1:12:30	-42	-86.5	0	-92.5	0	0	0	0	0	0	0
1/13/2020 1:17:30	-39	-77.5	0	-74.5	0	0	0	0	0	0	0
1/13/2020 1:22:30	-47	-93.33333333	0	-82.33333333	0	0	0	0	0	0	0
1/13/2020 1:27:30	-47	-90	0	-94	0	0	0	0	0	0	0
1/13/2020 1:32:30	-37	-76.5	0	-77	0	0	0	0	0	0	0
1/13/2020 1:37:30	-37	-77	0	-77.5	0	0	0	0	0	0	0
1/13/2020 1:42:30	-43	-89	0	-89.66666667	0	0	0	0	0	0	0
1/13/2020 1:47:30	-43	-99.5	0	-99.5	0	0	0	0	0	0	0
1/13/2020 1:52:30	-36	-73	0	-78	0	0	0	0	0	0	0
1/13/2020 1:57:30	-42	-81	0	-83.66666667	0	0	0	0	0	0	0
1/13/2020 2:02:30	-42	-91	0	-96	0	0	0	0	0	0	0
1/13/2020 2:07:30	-45	-97.33333333	0	-82	0	0	0	0	0	0	0
1/13/2020 2:12:30	-45	-78	0	-77	0	0	0	0	0	0	0
1/13/2020 2:17:30	-38	-86.66666667	0	-81.66666667	0	0	0	0	0	0	0
1/13/2020 2:22:30	-49	-98.66666667	0	-101	0	0	0	0	0	0	0
1/13/2020 2:27:30	-40	-88.5	0	-103	0	0	0	0	0	0	0
1/13/2020 2:32:30	-34	-75	0	-71.5	0	0	0	0	0	0	0
1/13/2020 2:37:30	-47	-96	0	-89.66666667	0	0	0	0	0	0	0
1/13/2020 2:42:30	-47	-98	0	-93.5	0	0	0	0	0	0	0
1/13/2020 2:47:30	-47	-78	0	-78	0	0	0	0	0	0	0
1/13/2020 2:52:30	-47	-81	0	-84	0	0	0	0	0	0	0
1/13/2020 2:57:30	-37	-70	0	-93	0	0	0	0	0	0	0
1/13/2020 3:02:30	-45.5	-93	0	-101	0	0	0	0	0	0	0
1/13/2020 3:07:30	-33	-71	0	-89.5	0	0	0	0	0	0	0
1/13/2020 3:12:30	-33	-68	0	-73	0	0	0	0	0	0	0
1/13/2020 3:17:30	-43	-86.33333333	0	-93	0	0	0	0	0	0	0
1/13/2020 3:22:30	-49	-98	0	-104	0	0	0	0	0	0	0
1/13/2020 3:27:30	-39	-82	0	-82.5	0	0	0	0	0	0	0
1/13/2020 3:32:30	-30	-71	0	-71.5	0	0	0	0	0	0	0
1/13/2020 3:37:30	-41	-79.33333333	0	-94.5	0	0	0	0	0	0	0
1/13/2020 3:42:30	-41	-91	0	-96	0	0	0	0	0	0	0
1/13/2020 3:47:30	-35	-77	0	-78	0	0	0	0	0	0	0
1/13/2020 3:52:30	-44	-80	0	-92	0	0	0	0	0	0	0
1/13/2020 3:57:30	-44	-80	0	-94	0	0	0	0	0	0	0
1/13/2020 4:02:30	-36	-76	0	-77	0	0	0	0	0	0	0
1/13/2020 4:07:30	-39	-80.5	0	-89	0	0	0	0	0	0	0
1/13/2020 4:12:30	-42	-83	0	-74.33333333	0	0	0	0	0	0	0
1/13/2020 4:17:30	-48	-99	0	-99.33333333	0	0	0	0	0	0	0
1/13/2020 4:22:30	-36	-72.5	0	-80	0	0	0	0	0	0	0
1/13/2020 4:27:30	-43	-86	0	-84	0	0	0	0	0	0	0
1/13/2020 4:32:30	-38	-77.66666667	0	-72.66666667	0	0	0	0	0	0	0
1/13/2020 4:37:30	-38	-79	0	-89	0	0	0	0	0	0	0
1/13/2020 4:42:30	-32	-67	0	-72.66666667	0	0	0	0	0	0	0
1/13/2020 4:47:30	-32	-77.66666667	0	-72.66666667	0	0	0	0	0	0	0
1/13/2020 4:52:30	-49.66666667	-102.6666667	0	-98.66666667	0	0	0	0	0	0	0
1/13/2020 4:57:30	-39	-85	0	-94.33333333	0	0	0	0	0	0	0
1/13/2020 5:02:30	-39	-78.66666667	0	-84	0	0	0	0	0	0	0
1/13/2020 5:07:30	-42	-81	0	-81	0	0	0	0	0	0	0
1/13/2020 5:12:30	-45	-92	0	-103	0	0	0	0	0	0	0
1/13/2020 5:17:30	-40	-81.33333333	0	-85.66666667	0	0	0	0	0	0	0
1/13/2020 5:22:30	-37	-80.33333333	0	-88.66666667	0	0	0	0	0	0	0
1/13/2020 5:27:30	-45	-89	0	-102	0	0	0	0	0	0	0
1/13/2020 5:32:30	-37	-86	0	-86.5	0	0	0	0	0	0	0
1/13/2020 5:37:30	-37	-80	0	-87.66666667	0	0	0	0	0	0	0
1/13/2020 5:42:30	-43	-86.66666667	0	-96	0	0	0	0	0	0	0
1/13/2020 5:47:30	-35	-74	0	-97	0	0	0	0	0	0	0
1/13/2020 5:52:30	-44	-86.5	0	-87.66666667	0	0	0	0	0	0	0
1/13/2020 5:57:30	-44	-90.5	0	-101.6666667	0	0	0	0	0	0	0
1/13/2020 6:02:30	-38	-87	0	-108	0	0	0	0	0	0	0
1/13/2020 6:07:30	-38	-87	0	-94.5	0	0	0	0	0	0	0
1/13/2020 6:12:30	-44	-94	0	-104	0	0	0	0	0	0	0
1/13/2020 6:17:30	-38	-96	0	-101	0	0	0	0	0	0	0
1/13/2020 6:22:30	-32	-70.66666667	0	-82.5	0	0	0	0	0	0	0
1/13/2020 6:27:30	-44	-90	0	-131	0	0	0	0	0	0	0
1/13/2020 6:32:30	-41	-91.5	0	-96	0	0	0	0	0	0	0
1/13/2020 6:37:30	-31	-85	0	-93.5	0	0	0	0	0	0	0
1/13/2020 6:42:30	-34	-64.5	0	-76	0	0	0	0	0	0	0
1/13/2020 6:47:30	-58.5	-89.66666667	0	-102	0	0	0	0	0	0	0
1/13/2020 6:52:30	-58.5	-77	0	-94.5	0	0	0	0	0	0	0
1/13/2020 6:57:30	-34	-70	0	-76	0	0	0	0	0	0	0
1/13/2020 7:02:30	-41	-84.66666667	0	-91.33333333	0	0	0	0	0	0	0
1/13/2020 7:07:30	-41	-82	0	-91	0	0	0	0	0	0	0
1/13/2020 7:12:30	-35	-83.5	0	-106	0	0	0	0	0	0	0
1/13/2020 7:17:30	-35	-73	0	-87	0	0	0	0	0	0	0
1/13/2020 7:22:30	-43	-91	0	-94.66666667	0	0	0	0	0	0	0
1/13/2020 7:27:30	-36	-81	0	-94.33333333	0	0	0	0	0	0	0
1/13/2020 7:32:30	-33.5	-74	0	-74.33333333	0	0	0	0	0	0	0
1/13/2020 7:37:30	-33.5	-62	0	-77.5	0	0	0	0	0	0	0
1/13/2020 7:42:30	-40	-88	0	-117.5	0	0	0	0	0	0	0
1/13/2020 7:47:30	-40	-95	0	-117.5	0	0	0	0	0	0	0
1/13/2020 7:52:30	-33	-76	0	-93	0	0	0	0	0	0	0
1/13/2020 7:57:30	-39	-76	0	-89	0	0	0	0	0	0	0
1/13/2020 8:02:30	-43.5	-87.5	0	-98	0	0	0	0	0	0	0
1/13/2020 8:07:30	-46	-99	0	-107.5	0	0	0	0	0	0	0
1/13/2020 8:12:30	-37	-91	0	-98	0	0	0	0	0	0	0
1/13/2020 8:17:30	-35.5	-72	0	-71	0	0	0	0	0	0	0
1/13/2020 8:22:30	-37.5	-79	0	-79	0	0	0	0	0	0	0
1/13/2020 8:27:30	-42	-87	0	-101.6666667	0	0	0	0	0	0	0
1/13/2020 8:32:30	-38.5	-80.33333333	0	-92.5	0	0	0	0	0	0	0
1/13/2020 8:37:30	-31	-72.5	0	-88	0	0	0	0	0	0	0
1/13/2020 8:42:30	-38	-82.33333333	0	-85	0	0	0	0	0	0	0
1/13/2020 8:47:30	-38	-82.33333333	0	-108	0	0	0	0	0	0	0
1/13/2020 8:52:30	-29	-71.5	0	-98.5	0	0	0	0	0	0	0
1/13/2020 8:57:30	-36	-70.33333333	0	-79.33333333	0	0	0	0	0	0	0
1/13/2020 9:02:30	-36	-84	0	-85.33333333	0	0	0	0	0	0	0
1/13/2020 9:07:30	-36	-74.66666667	0	-86.66666667	0	0	0	0	0	0	0
1/13/2020 9:12:30	-30	-61.5	0	-75	0	0	0	0	0	0	0
1/13/2020 9:17:30	-44.66666667	-78.33333333	0	-83	0	0	0	0	0	0	0
1/13/2020 9:22:30	-40	-85.66666667	0	-100.5	0	0	0	0	0	0	0
1/13/2020 9:27:30	-32.5	-74	0	-101.5	0	0	0	0	0	0	0
1/13/2020 9:32:30	-35	-59.66666667	0	-73.66666667	0	0	0	0	0	0	0
1/13/2020 9:37:30	-41	-83	0	-95.5	0	0	0	0	0	0	0
1/13/2020 9:42:30	-33	-69	0	-86.5	0	0	0	0	0	0	0
1/13/2020 9:47:30	-27	-66	0	-79.33333333	0	0	0	0	0	0	0

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/13/2020 9:52:30	-41.5	-68.33333333	0	-86.66666667	0	0	0	0	0	0	0
1/13/2020 9:57:30	-41.5	-83.66666667	0	-99	0	0	0	0	0	0	0
1/13/2020 10:02:30	-34	-73.66666667	0	-84.5	0	0	0	0	0	0	0
1/13/2020 10:07:30	-32.5	-56.33333333	0	-75	0	0	0	0	0	0	0
1/13/2020 10:12:30	-44	-91	0	-100	0	0	0	0	0	0	0
1/13/2020 10:17:30	-32.5	-81.5	0	-91.5	0	0	0	0	0	0	0
1/13/2020 10:22:30	-34	-64.33333333	0	-77	0	0	0	0	0	0	0
1/13/2020 10:27:30	-25	-75.5	0	-90	0	0	0	0	0	0	0
1/13/2020 10:32:30	-34.5	-72	0	-78	0	0	0	0	0	0	0
1/13/2020 10:37:30	-25	-59	0	-81.5	0	0	0	0	0	0	0
1/13/2020 10:42:30	-31	-56	0	-70.66666667	0	0	0	0	0	0	0
1/13/2020 10:47:30	-39	-82	0	-94.66666667	0	0	0	0	0	0	0
1/13/2020 10:52:30	-30	-67	0	-84	0	0	0	0	0	0	0
1/13/2020 10:57:30	-24	-57	0	-69	0	0	0	0	0	0	0
1/13/2020 11:02:30	-34	-70	0	-83	0	0	0	0	0	0	0
1/13/2020 11:07:30	-27	-60	0	-96	0	0	0	0	0	0	0
1/13/2020 11:12:30	-21	-50.5	0	-62	0	0	0	0	0	0	0
1/13/2020 11:17:30	-28	-52.5	0	-68	0	0	0	0	0	0	0
1/13/2020 11:22:30	-34	-69	0	-81	0	0	0	0	0	0	0
1/13/2020 11:27:30	-28	-72.5	0	-96	0	0	0	0	0	0	0
1/13/2020 11:32:30	-28	-59	0	-69.66666667	0	0	0	0	0	0	0
1/13/2020 11:37:30	-39	-83	0	-87	0	0	0	0	0	0	0
1/13/2020 11:42:30	-36	-90.66666667	0	-112	0	0	0	0	0	0	0
1/13/2020 11:47:30	-23	-63	0	-84.66666667	0	0	0	0	0	0	0
1/13/2020 11:52:30	-31	-68	0	-80	0	0	0	0	0	0	0
1/13/2020 11:57:30	-24	-53.5	0	-69.5	0	0	0	0	0	0	0
1/13/2020 12:02:30	-36	-68	0	-84	0	0	0	0	0	0	0
1/13/2020 12:07:30	-27	-52	0	-70.5	0	0	0	0	0	0	0
1/13/2020 12:12:30	-27	-57	0	-63	0	0	0	0	0	0	0
1/13/2020 12:17:30	-42.33333333	-69.66666667	0	-84.33333333	0	0	0	0	0	0	0
1/13/2020 12:22:30	-41.5	-94	0	-107	0	0	0	0	0	0	0
1/13/2020 12:27:30	-41.5	-60.33333333	0	-75	0	0	0	0	0	0	0
1/13/2020 12:32:30	-38	-74	0	-78	0	0	0	0	0	0	0
1/13/2020 12:37:30	-35	-80.5	0	-94	0	0	0	0	0	0	0
1/13/2020 12:42:30	-25.5	-60	0	-73.5	0	0	0	0	0	0	0
1/13/2020 12:47:30	-29.33333333	-65	0	-80	0	0	0	0	0	0	0
1/13/2020 12:52:30	-29.33333333	-66	0	-76.33333333	0	0	0	0	0	0	0
1/13/2020 12:57:30	-24	-49.5	0	-63	0	0	0	0	0	0	0
1/13/2020 13:02:30	-33	-63.33333333	0	-87.5	0	0	0	0	0	0	0
1/13/2020 13:07:30	-27	-59.33333333	0	-72.66666667	0	0	0	0	0	0	0
1/13/2020 13:12:30	-39	-78.5	0	-98	0	0	0	0	0	0	0
1/13/2020 13:17:30	-28	-89	0	-74	0	0	0	0	0	0	0
1/13/2020 13:22:30	-28	-89	0	-70	0	0	0	0	0	0	0
1/13/2020 13:27:30	-36	-79	0	-89	0	0	0	0	0	0	0
1/13/2020 13:32:30	-33	-84.66666667	0	-85.5	0	0	0	0	0	0	0
1/13/2020 13:37:30	-33	-63.5	0	-76	0	0	0	0	0	0	0
1/13/2020 13:42:30	-29	-74.33333333	0	-82	0	0	0	0	0	0	0
1/13/2020 13:47:30	-26	-57	0	-73	0	0	0	0	0	0	0
1/13/2020 13:52:30	-26	-61	0	-80	0	0	0	0	0	0	0
1/13/2020 13:57:30	-33.5	-75	0	-95.5	0	0	0	0	0	0	0
1/13/2020 14:02:30	-46	-82	0	-85	0	0	0	0	0	0	0
1/13/2020 14:07:30	-36	-64.66666667	0	-76	0	0	0	0	0	0	0
1/13/2020 14:12:30	-34.66666667	-73	0	-83	0	0	0	0	0	0	0
1/13/2020 14:17:30	-40.5	-85.33333333	0	-112	0	0	0	0	0	0	0
1/13/2020 14:22:30	-28	-56.66666667	0	-76	0	0	0	0	0	0	0
1/13/2020 14:27:30	-37	-73	0	-81.33333333	0	0	0	0	0	0	0
1/13/2020 14:32:30	-31	-69	0	-81	0	0	0	0	0	0	0
1/13/2020 14:37:30	-25	-53.33333333	0	-65	0	0	0	0	0	0	0
1/13/2020 14:42:30	-25	-61	0	-77	0	0	0	0	0	0	0
1/13/2020 14:47:30	-34.5	-74	0	-99	0	0	0	0	0	0	0
1/13/2020 14:52:30	-40	-75	0	-91	0	0	0	0	0	0	0
1/13/2020 14:57:30	-29	-75	0	-71	0	0	0	0	0	0	0
1/13/2020 15:02:30	-26.5	-63.33333333	0	-73.5	0	0	0	0	0	0	0
1/13/2020 15:07:30	-28.33333333	-62.66666667	0	-88	0	0	0	0	0	0	0
1/13/2020 15:12:30	-38	-79	0	-99	0	0	0	0	0	0	0
1/13/2020 15:17:30	-38.5	-88	0	-94	0	0	0	0	0	0	0
1/13/2020 15:22:30	-25	-57	0	-70	0	0	0	0	0	0	0
1/13/2020 15:27:30	-28.5	-62.75	0	-76.33333333	0	0	0	0	0	0	0
1/13/2020 15:32:30	-65.66666667	-92	0	-86	0	0	0	0	0	0	0
1/13/2020 15:37:30	-40	-69.33333333	0	-75	0	0	0	0	0	0	0
1/13/2020 15:42:30	-54.33333333	-73.33333333	0	-92.33333333	0	0	0	0	0	0	0
1/13/2020 15:47:30	-35	-69.5	0	-79.66666667	0	0	0	0	0	0	0
1/13/2020 15:52:30	-41.66666667	-89.33333333	0	-99.5	0	0	0	0	0	0	0
1/13/2020 15:57:30	-31	-68.66666667	0	-76.66666667	0	0	0	0	0	0	0
1/13/2020 16:02:30	-28	-72	0	-75	0	0	0	0	0	0	0
1/13/2020 16:07:30	-37	-73.5	0	-89.66666667	0	0	0	0	0	0	0
1/13/2020 16:12:30	-37	-81.5	0	-102.5	0	0	0	0	0	0	0
1/13/2020 16:17:30	-33	-72.66666667	0	-86.33333333	0	0	0	0	0	0	0
1/13/2020 16:22:30	-54.5	-73.66666667	0	-87.66666667	0	0	0	0	0	0	0
1/13/2020 16:27:30	-54.5	-81	0	-93	0	0	0	0	0	0	0
1/13/2020 16:32:30	-54.5	-82	0	-96	0	0	0	0	0	0	0
1/13/2020 16:37:30	-34	-68	0	-88.66666667	0	0	0	0	0	0	0
1/13/2020 16:42:30	-27	-65	0	-79	0	0	0	0	0	0	0
1/13/2020 16:47:30	-33	-103.5	0	-88.33333333	0	0	0	0	0	0	0
1/13/2020 16:52:30	-43	-81.33333333	0	-97	0	0	0	0	0	0	0
1/13/2020 16:57:30	-35	-79	0	-86	0	0	0	0	0	0	0
1/13/2020 17:02:30	-35	-76	0	-86	0	0	0	0	0	0	0
1/13/2020 17:07:30	-42	-100.5	0	-106	0	0	0	0	0	0	0
1/13/2020 17:12:30	-42	-85	0	-102	0	0	0	0	0	0	0
1/13/2020 17:17:30	-33.5	-73.66666667	0	-87.66666667	0	0	0	0	0	0	0
1/13/2020 17:22:30	-33.5	-85.66666667	0	-92.5	0	0	0	0	0	0	0
1/13/2020 17:27:30	-48	-103	0	-110	0	0	0	0	0	0	0
1/13/2020 17:32:30	-49	-102	0	-107	0	0	0	0	0	0	0
1/13/2020 17:37:30	-38	-79	0	-90	0	0	0	0	0	0	0
1/13/2020 17:42:30	-35	-77.33333333	0	-86	0	0	0	0	0	0	0
1/13/2020 17:47:30	-35	-79.66666667	0	-105.5	0	0	0	0	0	0	0
1/13/2020 17:52:30	-44	-106	0	-114	0	0	0	0	0	0	0
1/13/2020 17:57:30	-42	-88.5	0	-107.5	0	0	0	0	0	0	0
1/13/2020 18:02:30	-33	-69.66666667	0	-84.5	0	0	0	0	0	0	0
1/13/2020 18:07:30	-43	-124.5	0	-115.5	0	0	0	0	0	0	0
1/13/2020 18:12:30	-39.66666667	-74.66666667	0	-100.3333333	0	0	0	0	0	0	0
1/13/2020 18:17:30	-31	-67	0	-79	0	0	0	0	0	0	0
1/13/2020 18:22:30	-41	-77.66666667	0	-120.5	0	0	0	0	0	0	0
1/13/2020 18:27:30	-38	-92.5	0	-114	0	0	0	0	0	0	0
1/13/2020 18:32:30	-42	-81.66666667	0	-110	0	0	0	0	0	0	0
1/13/2020 18:37:30	-31	-69	0	-81	0	0	0	0	0	0	0
1/13/2020 18:42:30	-42	-115	0	-106	0	0	0	0	0	0	0
1/13/2020 18:47:30	-49	-104	0	-97.5	0	0	0	0	0	0	0
1/13/2020 18:52:30	-49	-78	0	-96	0	0	0	0	0	0	0
1/13/2020 18:57:30	-43	-82	0	-96	0	0	0	0	0	0	0
1/13/2020 19:02:30	-43	-92.5	0	-110	0	0	0	0	0	0	0
1/13/2020 19:07:30	-31	-92	0	-110	0	0	0	0	0	0	0
1/13/2020 19:12:30	-36	-81	0	-94	0	0	0	0	0	0	0
1/13/2020 19:17:30	-44	-89.5	0	-102.6666667	0	0	0	0	0	0	0
1/13/2020 19:22:30	-38	-89.5	0	-107	0	0	0	0	0	0	0
1/13/2020 19:27:30	-41	-86.66666667	0	-99.33333333	0	0	0	0	0	0	0
1/13/2020 19:32:30	-37.66666667	-90.5	0	-93.33333333	0	0	0	0	0	0	0
1/13/2020 19:37:30	-37.66666667	-85.5	0	-94	0	0	0	0	0	0	0

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/13/2020 19:42:30	-34	-86.66666667	0	-82	0	0	0	0	0	0	0
1/13/2020 19:47:30	-35	-83	0	-82	0	0	0	0	0	0	0
1/13/2020 19:52:30	-50	-103	0	-106.5	0	0	0	0	0	0	0
1/13/2020 19:57:30	-53	-111.5	0	-108	0	0	0	0	0	0	0
1/13/2020 20:02:30	-36	-74	0	-93.33333333	0	0	0	0	0	0	0
1/13/2020 20:07:30	-37.5	-81.5	0	-96	0	0	0	0	0	0	0
1/13/2020 20:12:30	-39	-85	0	-136.5	0	0	0	0	0	0	0
1/13/2020 20:17:30	-41.5	-92.66666667	0	-103	0	0	0	0	0	0	0
1/13/2020 20:22:30	-41.5	-76	0	-107.5	0	0	0	0	0	0	0
1/13/2020 20:27:30	-37	-78.66666667	0	-94	0	0	0	0	0	0	0
1/13/2020 20:32:30	-49	-100.5	0	-106	0	0	0	0	0	0	0
1/13/2020 20:37:30	-39	-89	0	-112.5	0	0	0	0	0	0	0
1/13/2020 20:42:30	-41.5	-75	0	-89	0	0	0	0	0	0	0
1/13/2020 20:47:30	-38	-80.33333333	0	-101	0	0	0	0	0	0	0
1/13/2020 20:52:30	-38	-80.33333333	0	-110	0	0	0	0	0	0	0
1/13/2020 20:57:30	-34	-89	0	-96.5	0	0	0	0	0	0	0
1/13/2020 21:02:30	-34	-72	0	-85	0	0	0	0	0	0	0
1/13/2020 21:07:30	-40	-84.33333333	0	-100	0	0	0	0	0	0	0
1/13/2020 21:12:30	-40	-87	0	-103	0	0	0	0	0	0	0
1/13/2020 21:17:30	-31	-89	0	-83.5	0	0	0	0	0	0	0
1/13/2020 21:22:30	-35	-67	0	-78.5	0	0	0	0	0	0	0
1/13/2020 21:27:30	-44	-97.66666667	0	-101.3333333	0	0	0	0	0	0	0
1/13/2020 21:32:30	-44	-96	0	-105.3333333	0	0	0	0	0	0	0
1/13/2020 21:37:30	-34.33333333	-71	0	-83	0	0	0	0	0	0	0
1/13/2020 21:42:30	-33	-61.33333333	0	-79.5	0	0	0	0	0	0	0
1/13/2020 21:47:30	-39	-115.5	0	-101.6666667	0	0	0	0	0	0	0
1/13/2020 21:52:30	-43	-91	0	-84	0	0	0	0	0	0	0
1/13/2020 21:57:30	-43	-75	0	-84	0	0	0	0	0	0	0
1/13/2020 22:02:30	-43	-87	0	-96.33333333	0	0	0	0	0	0	0
1/13/2020 22:07:30	-37	-86.5	0	-102.6666667	0	0	0	0	0	0	0
1/13/2020 22:12:30	-37	-76.5	0	-92.33333333	0	0	0	0	0	0	0
1/13/2020 22:17:30	-37	-88.5	0	-92.33333333	0	0	0	0	0	0	0
1/13/2020 22:22:30	-43	-121.5	0	-106	0	0	0	0	0	0	0
1/13/2020 22:27:30	-35	-73	0	-105	0	0	0	0	0	0	0
1/13/2020 22:32:30	-35	-73	0	-86	0	0	0	0	0	0	0
1/13/2020 22:37:30	-39.33333333	-84.33333333	0	-101.5	0	0	0	0	0	0	0
1/13/2020 22:42:30	-44.5	-78.5	0	-97	0	0	0	0	0	0	0
1/13/2020 22:47:30	-39	-77	0	-106	0	0	0	0	0	0	0
1/13/2020 22:52:30	-39	-88.5	0	-93.33333333	0	0	0	0	0	0	0
1/13/2020 22:57:30	-45	-88.5	0	-104.3333333	0	0	0	0	0	0	0
1/13/2020 23:02:30	-45	-96	0	-112	0	0	0	0	0	0	0
1/13/2020 23:07:30	-37	-111	0	-118	0	0	0	0	0	0	0
1/13/2020 23:12:30	-37	-84	0	-92	0	0	0	0	0	0	0
1/13/2020 23:17:30	-44	-86.5	0	-96.5	0	0	0	0	0	0	0
1/13/2020 23:22:30	-44	-103	0	-110	0	0	0	0	0	0	0
1/13/2020 23:27:30	-41	-95.66666667	0	-94	0	0	0	0	0	0	0
1/13/2020 23:32:30	-32.5	-75	0	-84.5	0	0	0	0	0	0	0
1/13/2020 23:37:30	-37	-82	0	-100	0	0	0	0	0	0	0
1/13/2020 23:42:30	-37	-82.33333333	0	-102.3333333	0	0	0	0	0	0	0
1/13/2020 23:47:30	-37	-74	0	-102.3333333	0	0	0	0	0	0	0
1/13/2020 23:52:30	-45	-92.66666667	0	-140.5	0	0	0	0	0	0	0
1/13/2020 23:57:30	-45	-103	0	-114.5	0	0	0	0	0	0	0
1/14/2020 0:02:30	-35	-74	0	-89.33333333	0	0	0	0	0	0	0
1/14/2020 0:07:30	-35	-75	0	-86	0	0	0	0	0	0	0
1/14/2020 0:12:30	-43	-91	0	-102	0	0	0	0	0	0	0
1/14/2020 0:17:30	-43	-91.66666667	0	-103.6666667	0	0	0	0	0	0	0
1/14/2020 0:22:30	-36	-61	0	-90	0	0	0	0	0	0	0
1/14/2020 0:27:30	-36	-72	0	-87	0	0	0	0	0	0	0
1/14/2020 0:32:30	-40	-80	0	-101	0	0	0	0	0	0	0
1/14/2020 0:37:30	-37	-72	0	-87	0	0	0	0	0	0	0
1/14/2020 0:42:30	-40	-80	0	-94	0	0	0	0	0	0	0
1/14/2020 0:47:30	-46	-92	0	-111.3333333	0	0	0	0	0	0	0
1/14/2020 0:52:30	-44.5	-88	0	-111.5	0	0	0	0	0	0	0
1/14/2020 0:57:30	-34	-74	0	-89	0	0	0	0	0	0	0
1/14/2020 1:02:30	-43	-86	0	-104	0	0	0	0	0	0	0
1/14/2020 1:07:30	-43	-83.5	0	-108	0	0	0	0	0	0	0
1/14/2020 1:12:30	-30	-68	0	-108.5	0	0	0	0	0	0	0
1/14/2020 1:17:30	-36	-75	0	-89	0	0	0	0	0	0	0
1/14/2020 1:22:30	-36	-78	0	-97	0	0	0	0	0	0	0
1/14/2020 1:27:30	-44	-98	0	-113.5	0	0	0	0	0	0	0
1/14/2020 1:32:30	-34.5	-78	0	-106.5	0	0	0	0	0	0	0
1/14/2020 1:37:30	-34.5	-77	0	-106.5	0	0	0	0	0	0	0
1/14/2020 1:42:30	-39	-89	0	-105	0	0	0	0	0	0	0
1/14/2020 1:47:30	-47.5	-87	0	-104	0	0	0	0	0	0	0
1/14/2020 1:52:30	-29	-63	0	-104	0	0	0	0	0	0	0
1/14/2020 1:57:30	-37	-76	0	-88.66666667	0	0	0	0	0	0	0
1/14/2020 2:02:30	-46.5	-83	0	-111.3333333	0	0	0	0	0	0	0
1/14/2020 2:07:30	-38	-80	0	-83	0	0	0	0	0	0	0
1/14/2020 2:12:30	-44	-86	0	-100.3333333	0	0	0	0	0	0	0
1/14/2020 2:17:30	-44	-93	0	-108	0	0	0	0	0	0	0
1/14/2020 2:22:30	-34	-72	0	-91	0	0	0	0	0	0	0
1/14/2020 2:27:30	-42	-84.66666667	0	-105.3333333	0	0	0	0	0	0	0
1/14/2020 2:32:30	-42	-94	0	-129	0	0	0	0	0	0	0
1/14/2020 2:37:30	-33	-80	0	-110	0	0	0	0	0	0	0
1/14/2020 2:42:30	-33	-80	0	-110	0	0	0	0	0	0	0
1/14/2020 2:47:30	-42	-75.66666667	0	-93.66666667	0	0	0	0	0	0	0
1/14/2020 2:52:30	-42	-96	0	-123.5	0	0	0	0	0	0	0
1/14/2020 2:57:30	-33	-73.5	0	-97	0	0	0	0	0	0	0
1/14/2020 3:02:30	-33	-73.5	0	-94	0	0	0	0	0	0	0
1/14/2020 3:07:30	-55.5	-83.66666667	0	-98.33333333	0	0	0	0	0	0	0
1/14/2020 3:12:30	-46	-95.66666667	0	-104	0	0	0	0	0	0	0
1/14/2020 3:17:30	-36.5	-90.33333333	0	-93	0	0	0	0	0	0	0
1/14/2020 3:22:30	-36.5	-71	0	-98	0	0	0	0	0	0	0
1/14/2020 3:27:30	-39	-78	0	-92	0	0	0	0	0	0	0
1/14/2020 3:32:30	-30	-87	0	-83	0	0	0	0	0	0	0
1/14/2020 3:37:30	-43	-87	0	-89	0	0	0	0	0	0	0
1/14/2020 3:42:30	-43	-88.66666667	0	-112.3333333	0	0	0	0	0	0	0
1/14/2020 3:47:30	-36	-82.5	0	-105.5	0	0	0	0	0	0	0
1/14/2020 3:52:30	-30	-66.5	0	-83	0	0	0	0	0	0	0
1/14/2020 3:57:30	-30	-65	0	-82	0	0	0	0	0	0	0
1/14/2020 4:02:30	-36	-82.33333333	0	-93	0	0	0	0	0	0	0
1/14/2020 4:07:30	-30	-74	0	-97	0	0	0	0	0	0	0
1/14/2020 4:12:30	-54	-80	0	-97.5	0	0	0	0	0	0	0
1/14/2020 4:17:30	-54	-80	0	-103.5	0	0	0	0	0	0	0
1/14/2020 4:22:30	-30	-77.5	0	-82.5	0	0	0	0	0	0	0
1/14/2020 4:27:30	-30	-70	0	-87.5	0	0	0	0	0	0	0
1/14/2020 4:32:30	-40	-88	0	-107	0	0	0	0	0	0	0
1/14/2020 4:37:30	-31	-67	0	-82.5	0	0	0	0	0	0	0
1/14/2020 4:42:30	-25	-67	0	-82.5	0	0	0	0	0	0	0
1/14/2020 4:47:30	-44.5	-109.5	0	-92	0	0	0	0	0	0	0
1/14/2020 4:52:30	-30	-67.33333333	0	-85.66666667	0	0	0	0	0	0	0
1/14/2020 4:57:30	-30	-74.5	0	-85.66666667	0	0	0	0	0	0	0
1/14/2020 5:02:30	-40	-82	0	-103	0	0	0	0	0	0	0
1/14/2020 5:07:30	-29	-62	0	-88	0	0	0	0	0	0	0
1/14/2020 5:12:30	-29	-68.5	0	-77	0	0	0	0	0	0	0
1/14/2020 5:17:30	-39.5	-81.33333333	0	-95.33333333	0	0	0	0	0	0	0
1/14/2020 5:22:30	-35	-74	0	-108.5	0	0	0	0	0	0	0
1/14/2020 5:27:30	-27	-60	0	-77.5	0	0	0	0	0	0	0

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/14/2020 5:32:30	-33	-70	0	-83	0	0	0	0	0	0	0
1/14/2020 5:37:30	-33	-73	0	-90	0	0	0	0	0	0	0
1/14/2020 5:42:30	-40	-85	0	-105	0	0	0	0	0	0	0
1/14/2020 5:47:30	-38	-77	0	-88	0	0	0	0	0	0	0
1/14/2020 5:52:30	-38	-66	0	-91	0	0	0	0	0	0	0
1/14/2020 5:57:30	-40	-78	0	-90.33333333	0	0	0	0	0	0	0
1/14/2020 6:02:30	-30	-59	0	-75	0	0	0	0	0	0	0
1/14/2020 6:07:30	-30	-56	0	-82	0	0	0	0	0	0	0
1/14/2020 6:12:30	-34	-71.33333333	0	-93	0	0	0	0	0	0	0
1/14/2020 6:17:30	-41	-83	0	-102.3333333	0	0	0	0	0	0	0
1/14/2020 6:22:30	-31	-66	0	-105.5	0	0	0	0	0	0	0
1/14/2020 6:27:30	-31	-66	0	-89	0	0	0	0	0	0	0
1/14/2020 6:32:30	-57	-79.66666667	0	-100.5	0	0	0	0	0	0	0
1/14/2020 6:37:30	-38	-82	0	-94	0	0	0	0	0	0	0
1/14/2020 6:42:30	-38	-57	0	-73.5	0	0	0	0	0	0	0
1/14/2020 6:47:30	-38	-77	0	-84	0	0	0	0	0	0	0
1/14/2020 6:52:30	-39.5	-82.33333333	0	-101	0	0	0	0	0	0	0
1/14/2020 6:57:30	-37	-87.5	0	-90	0	0	0	0	0	0	0
1/14/2020 7:02:30	-32	-71.66666667	0	-82	0	0	0	0	0	0	0
1/14/2020 7:07:30	-32	-67	0	-87.33333333	0	0	0	0	0	0	0
1/14/2020 7:12:30	-41	-91	0	-107	0	0	0	0	0	0	0
1/14/2020 7:17:30	-30	-65	0	-88	0	0	0	0	0	0	0
1/14/2020 7:22:30	-41	-65	0	-79.66666667	0	0	0	0	0	0	0
1/14/2020 7:27:30	-35	-75.5	0	-97	0	0	0	0	0	0	0
1/14/2020 7:32:30	-28	-59	0	-115	0	0	0	0	0	0	0
1/14/2020 7:37:30	-28	-68	0	-90.5	0	0	0	0	0	0	0
1/14/2020 7:42:30	-37	-115.5	0	-89.5	0	0	0	0	0	0	0
1/14/2020 7:47:30	-37	-76	0	-108.6666667	0	0	0	0	0	0	0
1/14/2020 7:52:30	-32	-65.5	0	-84.5	0	0	0	0	0	0	0
1/14/2020 7:57:30	-32	-75.5	0	-94	0	0	0	0	0	0	0
1/14/2020 8:02:30	-32	-69	0	-82	0	0	0	0	0	0	0
1/14/2020 8:07:30	-32	-72.5	0	-82	0	0	0	0	0	0	0
1/14/2020 8:12:30	-26	-60	0	-79	0	0	0	0	0	0	0
1/14/2020 8:17:30	-32	-70	0	-87.5	0	0	0	0	0	0	0
1/14/2020 8:22:30	-39	-80	0	-99	0	0	0	0	0	0	0
1/14/2020 8:27:30	-46.66666667	-95.33333333	0	-105	0	0	0	0	0	0	0
1/14/2020 8:32:30	-30	-71.5	0	-84	0	0	0	0	0	0	0
1/14/2020 8:37:30	-30	-72	0	-92.33333333	0	0	0	0	0	0	0
1/14/2020 8:42:30	-42	-78	0	-94.5	0	0	0	0	0	0	0
1/14/2020 8:47:30	-28	-78	0	-111.5	0	0	0	0	0	0	0
1/14/2020 8:52:30	-28	-78	0	-83	0	0	0	0	0	0	0
1/14/2020 8:57:30	-38	-75.66666667	0	-98	0	0	0	0	0	0	0
1/14/2020 9:02:30	-27	-67.5	0	-93.5	0	0	0	0	0	0	0
1/14/2020 9:07:30	-27	-59.33333333	0	-75	0	0	0	0	0	0	0
1/14/2020 9:12:30	-34	-70	0	-86	0	0	0	0	0	0	0
1/14/2020 9:17:30	-51.5	-79	0	-103.6666667	0	0	0	0	0	0	0
1/14/2020 9:22:30	-30	-74	0	-89.5	0	0	0	0	0	0	0
1/14/2020 9:27:30	-24	-58	0	-71	0	0	0	0	0	0	0
1/14/2020 9:32:30	-32	-61.66666667	0	-92.25	0	0	0	0	0	0	0
1/14/2020 9:37:30	-38	-80	0	-109.5	0	0	0	0	0	0	0
1/14/2020 9:42:30	-32	-74.5	0	-85.5	0	0	0	0	0	0	0
1/14/2020 9:47:30	-32	-70	0	-82.33333333	0	0	0	0	0	0	0
1/14/2020 9:52:30	-54	-84.5	0	-104	0	0	0	0	0	0	0
1/14/2020 9:57:30	-28	-68	0	-91	0	0	0	0	0	0	0
1/14/2020 10:02:30	-28	-56.5	0	-73	0	0	0	0	0	0	0
1/14/2020 10:07:30	-28	-65.5	0	-88	0	0	0	0	0	0	0
1/14/2020 10:12:30	-34	-77	0	-92	0	0	0	0	0	0	0
1/14/2020 10:17:30	-36	-75	0	-81.66666667	0	0	0	0	0	0	0
1/14/2020 10:22:30	-36	-60	0	-68	0	-21	0	0	0	0	0
1/14/2020 10:27:30	-32	-71	0	-77	0	-7	0	0	0	0	0
1/14/2020 10:32:30	-40	-78.5	0	-89	0	4.666666667	0	0	0	0	0
1/14/2020 10:37:30	-32	-79	0	-74.33333333	0	4.666666667	0	0	0	0	0
1/14/2020 10:42:30	-26	-55	0	-66	0	3	0	0	0	0	0
1/14/2020 10:47:30	-17	-68.33333333	0	-67.33333333	0	8.333333333	0	0	0	0	17
1/14/2020 10:52:30	-33	-68	0	-74	0	3	0	2.5	44	4	46.4
1/14/2020 10:57:30	-27	-56	170.5	-93	-15	3	8.75	-8	44.25	43	75.5
1/14/2020 11:02:30	0	0	135.6666667	-38.66666667	4	5.333333333	25	-3.5	48.33333333	39.33333333	44
1/14/2020 11:07:30	0	0	168.3333333	-44	31.33333333	4.5	26.33333333	-4.333333333	51	40.33333333	50.33333333
1/14/2020 11:12:30	0	0	186	-50.66666667	3	4.333333333	39.5	-3	54.33333333	43.66666667	48.33333333
1/14/2020 11:17:30	0	0	168.6666667	-26.33333333	3.5	4.333333333	43.5	0	43.33333333	33.66666667	44.66666667
1/14/2020 11:22:30	0	0	163	-38	2	5.5	24	0	44	42.66666667	46.66666667
1/14/2020 11:27:30	0	0	224.75	-66.5	3	3	25.5	0	50.66666667	44.66666667	62.66666667
1/14/2020 11:32:30	0	0	309	-70	3	2	25.5	1	57	48.33333333	59
1/14/2020 11:37:30	0	0	313	-70.66666667	3	4	25.5	4	55	47.33333333	59
1/14/2020 11:42:30	0	0	278	-78	0	2	0	20	62.66666667	45.66666667	58.66666667
1/14/2020 11:47:30	0	0	296.3333333	-77	0	4.333333333	0	20	46	46	62
1/14/2020 11:52:30	0	0	266.3333333	-54	0	3	0	20	31.5	20	29.33333333
1/14/2020 11:57:30	0	0	292.3333333	-61	0	3	0	20	33	23.33333333	31.33333333
1/14/2020 12:02:30	0	0	295	-82.5	0	3	0	20	39.66666667	26.33333333	30.66666667
1/14/2020 12:07:30	0	0	308.3333333	-64.5	0	5.8	0	20	35.33333333	25.66666667	40
1/14/2020 12:12:30	0	0	273	-71	0	4	0	20	30.33333333	23.66666667	33.66666667
1/14/2020 12:17:30	0	0	301.3333333	-68.66666667	0	5.333333333	0	20	35.66666667	25.33333333	33.66666667
1/14/2020 12:22:30	0	0	299.6666667	-68.66666667	0	5.333333333	0	20	39	27.33333333	39.33333333
1/14/2020 12:27:30	0	0	303	-67.5	0	5.333333333	0	20	37	40.5	51.25
1/14/2020 12:32:30	0	0	281	-61	0	5.333333333	0	20	31.66666667	21.66666667	29
1/14/2020 12:37:30	0	0	271	-63.33333333	0	9	0	20	35.33333333	22.66666667	40
1/14/2020 12:42:30	0	0	302.3333333	-64	0	9	0	20	37.66666667	32.5	39.33333333
1/14/2020 12:47:30	0	0	282	-61	0	3	0	20	32.33333333	20.66666667	32.33333333
1/14/2020 12:52:30	0	0	282	-82	0	6.333333333	0	20	38.75	32.25	40.25
1/14/2020 12:57:30	0	0	320.6666667	-79	0	3	0	20	43.33333333	30	40.33333333
1/14/2020 13:02:30	0	0	331.5	-62	0	5	0	20	30.66666667	22.33333333	37.5
1/14/2020 13:07:30	0	0	289.3333333	-68	0	6	0	20	35	24.33333333	32
1/14/2020 13:12:30	0	0	328	-77.5	0	3.666666667	0	20	34.33333333	29	39
1/14/2020 13:17:30	0	0	319	-71.5	0	3.666666667	0	20	36	23.33333333	32
1/14/2020 13:22:30	0	0	313.3333333	-63	0	3.666666667	0	20	33.33333333	26	36.33333333
1/14/2020 13:27:30	0	0	285	-70.66666667	0	18	0	0	37.66666667	28	38.66666667
1/14/2020 13:32:30	0	0	345.5	-71.5	0	4.666666667	-8	0	45.66666667	35	47.33333333
1/14/2020 13:37:30	0	0	246.6666667	-36.75	0	4.5	50	0	27.33333333	21	27.25
1/14/2020 13:42:30	0	0	322.6666667	-69.66666667	0	3.666666667	50	0	37.66666667	30.66666667	38.66666667
1/14/2020 13:47:30	0	0	344.3333333	-73	0	5.5	50	0	39.66666667	33	43.33333333
1/14/2020 13:52:30	0	0	343	-93.33333333	0	20	50	0	49.5	45	65
1/14/2020 13:57:30	0	0	313.6666667	-55	0	6.333333333	50	0	36.66666667	23.66666667	30.66666667
1/14/2020 14:02:30	0	0	302.3333333	-59.66666667	0	6	50	0	31.33333333	24.66666667	30
1/14/2020 14:07:30	0	0	312.3333333	-73	0	6.333333333	50	0	37.33333333	27.33333333	36.33333333
1/14/2020 14:12:30	0	0	336.3333333	-72.66666667	0	10.5	50	0	38.66666667	28.33333333	37
1/14/2020 14:17:30	0	0	337	-67	0	4	50	0	37.5	29.5	38.5
1/14/2020 14:22:30	0	0	342	-84.5	0	5	0	0	38	30	40
1/14/2020 14:27:30	0	0	355.5	-68	0	-3.666666667	-5	0	35.5	30	38
1/14/2020 14:32:30	0	0	226	-4	0	5	46.66666667	0	23.5	11.4	25.25
1/14/2020 14:37:30	0	0	307.6666667	-71	0	5	46.66666667	0	36.33333333	30.25	40.25
1/14/2020 14:42:30	0	0	342.3333333	-85	0	7.333333333	46.66666667	0	45.5	36	42
1/14/2020 14:47:30	0	0	358	-97	0	11.5	0	0	47.33333333	31.5	42.66666667
1/14/2020 14:52:30	0	0	213	-15.5	0	6.5	43.33333333	0	23.5	10	25.5
1/14/2020 14:57:30	0	0	296.3333333	-85.66666667	0	4.666666667	43.33333333	0	41.5	22.33333333	29.66666667
1/14/2020 15:02:30	0	0	343.3333333	-86	0	6	43.33333333	0	41	30.33333333	42.66666667
1/14/2020 15:07:30	0	0	366	-90	0	10	0	0	39.5	31.33333333	43
1/14/2020 15:12:30	0	0	221.6666667	-38.75	0	7	40.33333333	0	26.66666667	11.8	25.75
1/14/2020 15:17:30	0	0	344	-71.33333333	0	6.333333333	40.33333333	0	38.33333333	30.5	36.66666667

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/14/2020 15:22:30	0	0	343.3333333	-90	0	9	40.33333333	0	41.66666667	29.33333333	41.33333333
1/14/2020 15:27:30	0	0	344.3333333	-83.5	0	6.333333333	40.33333333	0	39	29	38.66666667
1/14/2020 15:32:30	0	0	326	-72	0	7	40.33333333	0	37.33333333	27.33333333	35
1/14/2020 15:37:30	0	0	302	-67	0	7.5	40.33333333	0	34.33333333	26	33.75
1/14/2020 15:42:30	0	0	346	-100	0	9.333333333	0	0	41	31.33333333	51
1/14/2020 15:47:30	0	0	265	-26.25	0	6.333333333	29.6	0	21.33333333	11.66666667	23.5
1/14/2020 15:52:30	0	0	287	-66.33333333	0	6.333333333	37.5	0	38	28.5	28
1/14/2020 15:57:30	0	0	351	-80	0	10.33333333	37.5	0	43.33333333	31.33333333	39.33333333
1/14/2020 16:02:30	0	0	355	-96	0	4	37.5	0	43	32.66666667	41.33333333
1/14/2020 16:07:30	0	0	315	-66.5	0	4.666666667	37.5	0	36.33333333	27.66666667	40
1/14/2020 16:12:30	0	0	350	-65	0	4	37.5	0	36	24.33333333	38
1/14/2020 16:17:30	0	0	337	-75	0	9	0	0	41.33333333	28.33333333	39.33333333
1/14/2020 16:22:30	0	0	246.3333333	-36.66666667	0	6.333333333	42.66666667	0	30.33333333	17.66666667	23.33333333
1/14/2020 16:27:30	0	0	204	-6.5	0	6.333333333	42.66666667	0	26.75	12.4	26.5
1/14/2020 16:32:30	0	0	304.3333333	-66.33333333	0	9.333333333	42.66666667	0	31	25	32.66666667
1/14/2020 16:37:30	0	0	327.3333333	-80	0	6	42.66666667	0	40	27.33333333	38.66666667
1/14/2020 16:42:30	0	0	338	-82	0	4	42.66666667	0	40.33333333	31	42.5
1/14/2020 16:47:30	0	0	314	-65	0	8.666666667	42.66666667	0	40.5	25.33333333	35.33333333
1/14/2020 16:52:30	0	0	330.6666667	-78.66666667	0	9.333333333	42.66666667	0	35.33333333	29.33333333	40.33333333
1/14/2020 16:57:30	0	0	360.5	-80	0	4	42.66666667	0	40	30.33333333	43
1/14/2020 17:02:30	0	0	327.3333333	-69	0	4.666666667	42.66666667	0	40.5	28	36.66666667
1/14/2020 17:07:30	0	0	314	-61.5	0	4.666666667	42.66666667	0	34.33333333	28	35
1/14/2020 17:12:30	0	0	324	-79.5	0	7.666666667	42.66666667	0	38.66666667	30.66666667	42
1/14/2020 17:17:30	0	0	333	-86.5	0	7.333333333	42.66666667	0	57.5	79	56
1/14/2020 17:22:30	0	0	313	-49	0	4	42.66666667	0	33.33333333	25	36
1/14/2020 17:27:30	0	0	309	-88.33333333	0	7.333333333	42.66666667	0	33.33333333	24.33333333	35.66666667
1/14/2020 17:32:30	0	0	332	-90	0	10.33333333	42.66666667	0	39.33333333	29	40.33333333
1/14/2020 17:37:30	0	0	319	-59	0	7	42.66666667	0	37.33333333	27.33333333	38
1/14/2020 17:42:30	0	0	321	-77.5	0	7	42.66666667	0	40.66666667	34.5	36.33333333
1/14/2020 17:47:30	0	0	339.6666667	-83.66666667	0	10	42.66666667	0	40.66666667	30	42.33333333
1/14/2020 17:52:30	0	0	307.5	-57	0	5.333333333	42.66666667	0	34.33333333	27	39.33333333
1/14/2020 17:57:30	0	0	303.3333333	-86	0	4	42.66666667	0	43	25.66666667	35
1/14/2020 18:02:30	0	0	343.6666667	-84	0	4	42.66666667	0	42.33333333	32.33333333	45.33333333
1/14/2020 18:07:30	0	0	292	-84	0	4	42.66666667	0	35.66666667	25.33333333	34.66666667
1/14/2020 18:12:30	0	0	310	-59	0	4	42.66666667	0	38.33333333	27.33333333	39.66666667
1/14/2020 18:17:30	0	0	314.3333333	-94	0	4	42.66666667	0	36	28.66666667	35.66666667
1/14/2020 18:22:30	0	0	306.3333333	-90.33333333	0	4	42.66666667	0	38.33333333	27.66666667	37.66666667
1/14/2020 18:27:30	0	0	297	-61.66666667	0	4	42.66666667	0	35.66666667	24.33333333	33.33333333
1/14/2020 18:32:30	0	0	300	-59	0	4	42.66666667	0	36.33333333	25	37.66666667
1/14/2020 18:37:30	0	0	314.6666667	-109.5	0	4	42.66666667	0	36.33333333	28	37.25
1/14/2020 18:42:30	0	0	354	-62	0	4	42.66666667	0	39.33333333	32	42.33333333
1/14/2020 18:47:30	0	0	307	-69.5	0	4	42.66666667	0	37.33333333	25.33333333	29.66666667
1/14/2020 18:52:30	0	0	306.3333333	-65	0	4	42.66666667	0	37.33333333	26	35
1/14/2020 18:57:30	0	0	319.3333333	-73	0	4	42.66666667	0	39.33333333	28	42.66666667
1/14/2020 19:02:30	0	0	325.6666667	-80	0	4	42.66666667	0	42	31	42.33333333
1/14/2020 19:07:30	0	0	316	-63	0	4	42.66666667	0	39.33333333	31	40
1/14/2020 19:12:30	0	0	283.5	-51	0	4	42.66666667	0	35.33333333	23.33333333	28.33333333
1/14/2020 19:17:30	0	0	294	-65.66666667	0	4	42.66666667	0	37	25.33333333	33.33333333
1/14/2020 19:22:30	0	0	313.6666667	-69	0	4	42.66666667	0	37.33333333	30	37.66666667
1/14/2020 19:27:30	0	0	272.6666667	-53	0	4	42.66666667	0	34	22.66666667	28.33333333
1/14/2020 19:32:30	0	0	296	-61.66666667	0	4	42.66666667	0	37.75	25.66666667	33.33333333
1/14/2020 19:37:30	0	0	320.3333333	-82	0	4	42.66666667	0	39.66666667	32.33333333	42.66666667
1/14/2020 19:42:30	0	0	307	-57	0	4	42.66666667	0	39.66666667	28.66666667	38.33333333
1/14/2020 19:47:30	0	0	308	-58.33333333	0	4	42.66666667	0	42	25.33333333	31.33333333
1/14/2020 19:52:30	0	0	315.6666667	-85	0	4	42.66666667	0	40.66666667	28.33333333	41.33333333
1/14/2020 19:57:30	0	0	310	-59.33333333	0	4	42.66666667	0	33.33333333	27	38.66666667
1/14/2020 20:02:30	0	0	306	-94.5	0	4	42.66666667	0	33.33333333	25.66666667	35.66666667
1/14/2020 20:07:30	0	0	335.3333333	-77.66666667	0	4	42.66666667	0	41	39	42.33333333
1/14/2020 20:12:30	0	0	336.3333333	-75	0	4	42.66666667	0	37.33333333	32.66666667	37.66666667
1/14/2020 20:17:30	0	0	278	-75	0	4	42.66666667	0	36.5	24.33333333	29.66666667
1/14/2020 20:22:30	0	0	278	-55	0	4	42.66666667	0	32.66666667	22.66666667	28.66666667
1/14/2020 20:27:30	0	0	325.3333333	-88.66666667	0	4	42.66666667	0	43	31.33333333	43.66666667
1/14/2020 20:32:30	0	0	324.5	-81	0	4	42.66666667	0	40	30	40
1/14/2020 20:37:30	0	0	295.3333333	-81	0	4	42.66666667	0	35.33333333	26.33333333	31.33333333
1/14/2020 20:42:30	0	0	292	-65	0	4	42.66666667	0	37.66666667	25	33.33333333
1/14/2020 20:47:30	0	0	317	-77.66666667	0	4	42.66666667	0	38.66666667	29	34.33333333
1/14/2020 20:52:30	0	0	313.5	-57	0	4	42.66666667	0	36	33	41.5
1/14/2020 20:57:30	0	0	279	-57	0	4	42.66666667	0	36.33333333	25	32.33333333
1/14/2020 21:02:30	0	0	329.3333333	-73.33333333	0	4	42.66666667	0	38.33333333	28.33333333	37.33333333
1/14/2020 21:07:30	0	0	332.5	-77.5	0	4	42.66666667	0	40.33333333	30	41.33333333
1/14/2020 21:12:30	0	0	273	-48	0	4	42.66666667	0	30.33333333	22	28
1/14/2020 21:17:30	0	0	283.3333333	-77.66666667	0	4	42.66666667	0	33	27	30.33333333
1/14/2020 21:22:30	0	0	321.6666667	-63	0	4	42.66666667	0	41.33333333	28	41.5
1/14/2020 21:27:30	0	0	288	-58	0	4	42.66666667	0	37	24	32.33333333
1/14/2020 21:32:30	0	0	282	-66.5	0	4	42.66666667	0	33.33333333	26.66666667	31
1/14/2020 21:37:30	0	0	298.6666667	-69.5	0	4	42.66666667	0	39	30.5	41.33333333
1/14/2020 21:42:30	0	0	270.3333333	-60	0	4	42.66666667	0	34.33333333	24.66666667	32.66666667
1/14/2020 21:47:30	0	0	292	-60	0	4	42.66666667	0	35	26	35
1/14/2020 21:52:30	0	0	272	-74	0	4	42.66666667	0	37.66666667	26	31.33333333
1/14/2020 21:57:30	0	0	304.3333333	-69.5	0	4	42.66666667	0	40.66666667	29.66666667	38.33333333
1/14/2020 22:02:30	0	0	293.3333333	-56.5	0	4	42.66666667	0	37.33333333	27.33333333	38
1/14/2020 22:07:30	0	0	293.6666667	-65	0	4	42.66666667	0	33.66666667	24.33333333	34.66666667
1/14/2020 22:12:30	0	0	299.6666667	-70	0	4	42.66666667	0	40	27.66666667	37
1/14/2020 22:17:30	0	0	291	-62	0	4	42.66666667	0	38	29	38.33333333
1/14/2020 22:22:30	0	0	284.5	-55	0	4	42.66666667	0	35.66666667	25.33333333	35.33333333
1/14/2020 22:27:30	0	0	283.3333333	-70	0	4	42.66666667	0	38	35.5	33
1/14/2020 22:32:30	0	0	302.6666667	-81	0	4	42.66666667	0	39.33333333	29.33333333	40
1/14/2020 22:37:30	0	0	322.5	-62	0	4	42.66666667	0	42.33333333	33	43
1/14/2020 22:42:30	0	0	272.6666667	-62	0	4	42.66666667	0	34.33333333	26.33333333	32.66666667
1/14/2020 22:47:30	0	0	288	-72	0	4	42.66666667	0	38	28	39.25
1/14/2020 22:52:30	0	0	308	-66	0	4	42.66666667	0	41.33333333	30	42.33333333
1/14/2020 22:57:30	0	0	304.5	-56	0	4	42.66666667	0	36	29.5	33.33333333
1/14/2020 23:02:30	0	0	273.6666667	-55	0	4	42.66666667	0	35.33333333	21	33.33333333
1/14/2020 23:07:30	0	0	269	-67.33333333	0	4	42.66666667	0	36	27.66666667	31.33333333
1/14/2020 23:12:30	0	0	308.5	-57	0	4	42.66666667	0	37.66666667	29.33333333	36.5
1/14/2020 23:17:30	0	0	287.5	-60	0	4	42.66666667	0	37	28	35
1/14/2020 23:22:30	0	0	259.3333333	-77	0	4	42.66666667	0	42.33333333	28	30.33333333
1/14/2020 23:27:30	0	0	310	-69	0	4	42.66666667	0	40.66666667	33	42
1/14/2020 23:32:30	0	0	277	-57	0	4	42.66666667	0	36.66666667	24.33333333	30.33333333
1/14/2020 23:37:30	0	0	256.6666667	-61	0	4	42.66666667	0	36	25	31.66666667
1/14/2020 23:42:30	0	0	290.3333333	-68.5	0	4	42.66666667	0	39.33333333	28.33333333	40
1/14/2020 23:47:30	0	0	255.3333333	-49	0	4	42.66666667	0	35	23.33333333	34.33333333
1/14/2020 23:52:30	0	0	310	-80.66666667	0	4	42.66666667	0	34.33333333	24.33333333	39.33333333
1/14/2020 23:57:30	0	0	287	-61.66666667	0	4	42.66666667	0	35.66666667	25.66666667	34.33333333
1/15/2020 0:02:30	0	0	272.3333333	-61.33333333	0	0	0	0	36.5	28.33333333	39.33333333
1/15/2020 0:07:30	0	0	258.6666667	-60	0	0	0	0	36	26	35
1/15/2020 0:12:30	0	0	254	-82	0	0	0	0	36.66666667	25	29.66666667
1/15/2020 0:17:30	0	0	290	-82	0	0	0	0	38	31	41.66666667
1/15/2020 0:22:30	0	0	264	-61.5	0	0	0	0	36.5	23	35.33333333
1/15/2020 0:27:30	0	0	262	-61.5	0	0	0	0	34.33333333	24.33333333	32.66666667
1/15/2020 0:32:30	0	0	247	-59.33333333	0	0	0	0	32.33333333	26.66666667	31.33333333
1/15/2020 0:37:30	0	0	281	-67.66666667	0	0	0	0	39	26.33333333	33.66666667
1/15/2020 0:42:30	0	0	269	-49	0	0	0	0	32.33333333	20	35
1/15/2020 0:47:30	0	0	274	-66.66666667	0	0	0	0	41.66666667	27.66666667	32
1/15/2020 0:52:30	0	0	298	-88.5	0	0	0	0	40.33333333	31	39.66666667
1/15/2020 0:57:30	0	0	288	-60	0	0	0	0	36.33333333	23	33.33333333
1/15/2020 1:02:30	0	0	289.3333333	-57	0	0	0	0	38.33333333	28	37.33333333
1/15/2020 1:07:30	0	0	250.3333333	-76.5	0	0	0	0	38.33333333	26.66666667	34.66666667

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/15/2020 1:12:30	0	0	287.3333333	-76.5	0	0	0	0	39.33333333	30.66666667	40.33333333
1/15/2020 1:17:30	0	0	292.5	-73	0	0	0	0	37	29.5	38
1/15/2020 1:22:30	0	0	256.3333333	-73	0	0	0	0	33.33333333	24.66666667	30.25
1/15/2020 1:27:30	0	0	256.6666667	-71	0	0	0	0	40.33333333	18.33333333	31
1/15/2020 1:32:30	0	0	282.3333333	-86	0	0	0	0	39.33333333	29	36.33333333
1/15/2020 1:37:30	0	0	249.3333333	-56	0	0	0	0	39	25.33333333	33.5
1/15/2020 1:42:30	0	0	259	-61.5	0	0	0	0	37.75	25.33333333	32.66666667
1/15/2020 1:47:30	0	0	296.3333333	-75.66666667	0	0	0	0	39.33333333	30	38.66666667
1/15/2020 1:52:30	0	0	337	-78	0	0	0	0	43	33.33333333	44.33333333
1/15/2020 1:57:30	0	0	270.6666667	-65.5	0	0	0	0	35	26	32.66666667
1/15/2020 2:02:30	0	0	272.3333333	-60	0	0	0	0	38.66666667	32.66666667	43
1/15/2020 2:07:30	0	0	289	-74.5	0	0	0	0	41.33333333	29.33333333	37.5
1/15/2020 2:12:30	0	0	271.5	-62.33333333	0	0	0	0	35.33333333	25.66666667	31
1/15/2020 2:17:30	0	0	250	-54	0	0	0	0	34.33333333	21.66666667	28.66666667
1/15/2020 2:22:30	0	0	258.3333333	-70.5	0	0	0	0	40	24	28
1/15/2020 2:27:30	0	0	307.6666667	-81	0	0	0	0	40.66666667	30	42
1/15/2020 2:32:30	0	0	290.6666667	-80	0	-27	0	0	37.66666667	29.33333333	35.33333333
1/15/2020 2:37:30	0	0	259.6666667	-80	0	4	0	0	34.33333333	24.66666667	29
1/15/2020 2:42:30	0	0	268.6666667	-64	0	4.666666667	0	0	34	26.66666667	35.33333333
1/15/2020 2:47:30	0	0	294.3333333	-78	0	4.5	0	0	39.33333333	28.33333333	39.33333333
1/15/2020 2:52:30	0	0	295.6666667	-65	0	9.333333333	0	0	41.5	29	38.66666667
1/15/2020 2:57:30	0	0	255.6666667	-48	0	5.333333333	0	0	35.33333333	19	32
1/15/2020 3:02:30	0	0	272.3333333	-63	0	4.666666667	0	0	31.33333333	24.33333333	27.66666667
1/15/2020 3:07:30	0	0	291.6666667	-75.5	0	4.666666667	0	0	38.33333333	30	35.33333333
1/15/2020 3:12:30	0	0	302	-74	0	45	0	0	38	29	39
1/15/2020 3:17:30	0	0	262.3333333	-52	0	9.333333333	0	0	34	26	28.33333333
1/15/2020 3:22:30	0	0	258.3333333	-64	0	4.666666667	0	0	36.5	27	30.66666667
1/15/2020 3:27:30	0	0	302.3333333	-78	0	0	0	0	40.33333333	30.5	37.66666667
1/15/2020 3:32:30	0	0	279	-65.5	0	0	0	0	39.5	25.5	36
1/15/2020 3:37:30	0	0	261	-69.66666667	0	3	0	0	34.5	26	33.33333333
1/15/2020 3:42:30	0	0	297	-80.5	0	6.666666667	0	0	38.33333333	30.5	41.66666667
1/15/2020 3:47:30	0	0	272	-58.33333333	0	5	0	0	33	25	35.33333333
1/15/2020 3:52:30	0	0	269.6666667	-58	0	-1	0	0	30.33333333	19	27.33333333
1/15/2020 3:57:30	0	0	275.6666667	-68.5	0	5	0	0	37	23.66666667	32.33333333
1/15/2020 4:02:30	0	0	279.6666667	-74.5	0	3.666666667	0	0	39.33333333	28.66666667	34.33333333
1/15/2020 4:07:30	0	0	293.3333333	-58	0	9	0	0	41	29	33
1/15/2020 4:12:30	0	0	280.3333333	-60.66666667	0	4.333333333	0	0	40.5	25.33333333	35.66666667
1/15/2020 4:17:30	0	0	311.6666667	-76	0	4.666666667	0	0	39.33333333	31	40.33333333
1/15/2020 4:22:30	0	0	296.6666667	-75.5	0	4	0	0	40	31	39
1/15/2020 4:27:30	0	0	273.6666667	-61	0	-2	0	0	36.33333333	35.5	49.33333333
1/15/2020 4:32:30	0	0	274	-53.33333333	0	6.25	0	0	33.66666667	24	32
1/15/2020 4:37:30	0	0	253.3333333	-60.33333333	0	7.5	0	0	32	33	35.66666667
1/15/2020 4:42:30	0	0	300.3333333	-68	0	0	0	0	38	34.5	36
1/15/2020 4:47:30	0	0	276.3333333	-60.5	0	0	0	0	35	26.66666667	32.33333333
1/15/2020 4:52:30	0	0	308.3333333	-82	0	3	0	0	41.33333333	28	36
1/15/2020 4:57:30	0	0	296	-62	0	-3	0	0	38	31.5	43.5
1/15/2020 5:02:30	0	0	257.6666667	-72	0	13	0	0	35	24.66666667	34.33333333
1/15/2020 5:07:30	0	0	289.6666667	-67	0	-3	0	0	34.66666667	26.33333333	34.33333333
1/15/2020 5:12:30	0	0	305	-70	0	4.666666667	0	0	39.33333333	29	38.33333333
1/15/2020 5:17:30	0	0	282.3333333	-75.66666667	0	4	0	0	41	30	39.5
1/15/2020 5:22:30	0	0	259	-58.5	0	4	0	0	32	21.66666667	30.66666667
1/15/2020 5:27:30	0	0	280	-70	0	4.666666667	0	0	37.33333333	29	36
1/15/2020 5:32:30	0	0	304	-71.33333333	0	8	0	0	41	31	41
1/15/2020 5:37:30	0	0	263.3333333	-55	0	5	0	0	32	25.33333333	33.33333333
1/15/2020 5:42:30	0	0	302	-76	0	4	0	0	46	27	37.33333333
1/15/2020 5:47:30	0	0	298.6666667	-76	0	-1	0	0	40.33333333	34.5	39.33333333
1/15/2020 5:52:30	0	0	283.6666667	-76	0	7	0	0	37	24	32.66666667
1/15/2020 5:57:30	0	0	294.6666667	-87	0	8.333333333	0	0	32.33333333	25	33.66666667
1/15/2020 6:02:30	0	0	282.6666667	-68.5	0	4	0	0	41	28	37.33333333
1/15/2020 6:07:30	0	0	273	-59	0	-1	0	0	35.33333333	25.66666667	28.33333333
1/15/2020 6:12:30	0	0	268.6666667	-69.5	0	-1	0	0	37.5	27.33333333	29.33333333
1/15/2020 6:17:30	0	0	285	-71.5	0	8.333333333	0	0	40	28.66666667	35.66666667
1/15/2020 6:22:30	0	0	271.5	-56	0	1	0	0	32.33333333	22.66666667	37
1/15/2020 6:27:30	0	0	278	-63	0	1	0	0	37	25.33333333	30.33333333
1/15/2020 6:32:30	0	0	311.6666667	-77.66666667	0	1	0	0	40.33333333	31.33333333	37.33333333
1/15/2020 6:37:30	0	0	303	-80	0	3.5	0	0	39.66666667	29.33333333	40
1/15/2020 6:42:30	0	0	265	-80	0	25	0	0	36.33333333	25	32.66666667
1/15/2020 6:47:30	0	0	281.5	-56	0	1	0	0	32.33333333	25.5	33.66666667
1/15/2020 6:52:30	0	0	281.3333333	-66	0	7.5	0	0	38	35.5	42.5
1/15/2020 6:57:30	0	0	304	-61.5	0	4.666666667	0	0	39.33333333	29	40
1/15/2020 7:02:30	0	0	256.6666667	-63.5	0	5	0	0	34	25.5	34.66666667
1/15/2020 7:07:30	0	0	267.3333333	-63.5	0	5	0	0	33	27	33.33333333
1/15/2020 7:12:30	0	0	300.6666667	-67	0	7	0	0	42.66666667	26.33333333	38.66666667
1/15/2020 7:17:30	0	0	296	-75	0	7.5	0	0	41.33333333	27.33333333	39.33333333
1/15/2020 7:22:30	0	0	282.6666667	-65	0	4	0	0	36.66666667	27.33333333	37.33333333
1/15/2020 7:27:30	0	0	272	-62	0	4	0	0	34	24.33333333	30
1/15/2020 7:32:30	0	0	297	-77	0	4	0	0	35.33333333	29	37.33333333
1/15/2020 7:37:30	0	0	308.3333333	-65	0	-1	0	0	37.66666667	31	32.66666667
1/15/2020 7:42:30	0	0	245	-46	0	3	0	0	34	22.33333333	30
1/15/2020 7:47:30	0	0	260.6666667	-70	0	22	0	0	34.66666667	24	30.66666667
1/15/2020 7:52:30	0	0	308	-76.5	0	6	0	0	40.66666667	31	43.66666667
1/15/2020 7:57:30	0	0	278.6666667	-55	0	6	0	0	38	26	34
1/15/2020 8:02:30	0	0	268.6666667	-61	0	6	0	0	32.33333333	24.66666667	32.33333333
1/15/2020 8:07:30	0	0	285	-75.5	0	6	0	0	35.66666667	31.33333333	39.33333333
1/15/2020 8:12:30	0	0	289.3333333	-70	0	8.333333333	0	0	41.33333333	28.33333333	39
1/15/2020 8:17:30	0	0	271	-49	0	8.333333333	0	0	34	26.33333333	33.66666667
1/15/2020 8:22:30	0	0	268	-70.66666667	0	3	0	0	34.33333333	23	31
1/15/2020 8:27:30	0	0	280	-63.33333333	0	0	0	0	36.66666667	26.33333333	37.66666667
1/15/2020 8:32:30	0	0	270.3333333	-55.33333333	0	0	0	0	29.66666667	19.66666667	34
1/15/2020 8:37:30	0	0	295.3333333	-66.33333333	0	4	0	0	34.33333333	32	39
1/15/2020 8:42:30	0	0	291.5	-77.5	0	-3	0	0	41	31.33333333	42.66666667
1/15/2020 8:47:30	0	0	264.3333333	-77.5	0	8.333333333	0	0	35.33333333	24	30.66666667
1/15/2020 8:52:30	0	0	256.6666667	-77.5	0	-1	0	0	35	28	32.66666667
1/15/2020 8:57:30	0	0	282.3333333	-70	0	4.666666667	0	0	34.33333333	38.5	40.33333333
1/15/2020 9:02:30	0	0	305.6666667	-55.5	0	5	0	0	41	30.66666667	39.66666667
1/15/2020 9:07:30	0	0	275	-52	0	5.333333333	0	0	35.33333333	28.33333333	37
1/15/2020 9:12:30	0	0	282.3333333	-56.33333333	0	6	0	0	36.33333333	30	37.66666667
1/15/2020 9:17:30	0	0	297.5	-74.5	0	4.333333333	0	0	36.33333333	29.66666667	40
1/15/2020 9:22:30	0	0	253	-62	0	2	0	-13	36	20.33333333	28.66666667
1/15/2020 9:27:30	0	0	284	-65.5	0	4.666666667	0	-12.33333333	38.66666667	29.33333333	35.33333333
1/15/2020 9:32:30	0	0	319	-82.66666667	0	-2	0	0	40.66666667	26.33333333	40.66666667
1/15/2020 9:37:30	0	0	304.5	-69	0	6.5	-9.5	0	44	35	41.66666667
1/15/2020 9:42:30	0	0	207.3333333	-18.33333333	0	4.333333333	55	-16.66666667	37.66666667	28.33333333	0
1/15/2020 9:47:30	0	0	275	-54	0	3.666666667	55	-2.5	53	45.75	0
1/15/2020 9:52:30	0	0	266.3333333	-47.66666667	0	6	0	51.5	83	82	0
1/15/2020 9:57:30	0	0	187.3333333	-11.66666667	0	5	48.66666667	49.33333333	101.6666667	85.33333333	96.33333333
1/15/2020 10:02:30	0	0	167.5	7	0	5.333333333	50.66666667	60.33333333	114	101.3333333	114
1/15/2020 10:07:30	0	0	166.6666667	-5	0	4	54.33333333	63.66666667	109.6666667	101.3333333	113.6666667
1/15/2020 10:12:30	0	0	181	-5	0	3	53.66666667	65.33333333	120	108	121.6666667
1/15/2020 10:17:30	0	0	230.3333333	-42.33333333	0	5.5	46.66666667	45	87	74.66666667	80.66666667
1/15/2020 10:22:30	0	0	288.6666667	-63	0	5.5	46.66666667	45	36	24.33333333	31.33333333
1/15/2020 10:27:30	0	0	293.3333333	-74	0	5	46.66666667	45	33	25	32.33333333
1/15/2020 10:32:30	0	0	294	-70	0	6	46.66666667	45	32	23	29
1/15/2020 10:37:30	-780	-41.33333333	255.3333333	-69.5	4.5	4	9.666666667	0	27	10.33333333	22.33333333
1/15/2020 10:42:30	-17	-39	0	-30	4.5	5.333333333	18.33333333	18	27	0	0
1/15/2020 10:47:30	-62	-55	0	-70.5	2	4	20	18	27	0	0
1/15/2020 10:52:30	-18	-38	0	-60	2	5.333333333	25.33333333	18	27	0	0
1/15/2020 10:57:30	-18	-38	0	-60	2	4.666666667	23	18	27	0	0

Date	R1-U kVAR	R1-M kVAR	R2 kVAR	R3 kVAR	Generator-Bldg-"I" kVAR Output	Generator-Bldg-"E" kVAR Output	Generator-Bldg-"A" kVAR Output	Generator-Trailer-A1 kVAR Output	Generator-Trailer-A2 kVAR Output	Generator-Trailer-B1 kVAR Output	Generator-Trailer-B2 kVAR Output
1/15/2020 11:02:30	-50	-59.5	0	-50.5	4	5.5	23.33333333	18	27	0	0
1/15/2020 11:07:30	-30	-61.5	0	-59.33333333	2	9	0	18	27	0	0
1/15/2020 11:12:30	-27	-65	0	-65	2	6.333333333	0	18	27	0	0
1/15/2020 11:17:30	-27	-65	0	-65	2	4.666666667	0	18	27	0	0
1/15/2020 11:22:30	-27	-74	0	-80	2	4.666666667	0	18	27	0	0
1/15/2020 11:27:30	-40	-75.5	0	-85	2	5.333333333	0	18	27	0	0

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/13/2020 0:02:30	-276	-534.3333333	0	-293	0	0	0	0	0	0	0
1/13/2020 0:07:30	-284.5	-567.6666667	0	-322	0	0	0	0	0	0	0
1/13/2020 0:12:30	-262.3333333	-531.6666667	0	-309	0	0	0	0	0	0	0
1/13/2020 0:17:30	-266.6666667	-538.6666667	0	-302.6666667	0	0	0	0	0	0	0
1/13/2020 0:22:30	-267.6666667	-542	0	-270.3333333	0	0	0	0	0	0	0
1/13/2020 0:27:30	-275.6666667	-545.6666667	0	-316.3333333	0	0	0	0	0	0	0
1/13/2020 0:32:30	-282	-544.3333333	0	-314	0	0	0	0	0	0	0
1/13/2020 0:37:30	-270	-514.6666667	0	-294	0	0	0	0	0	0	0
1/13/2020 0:42:30	-261.3333333	-527.6666667	0	-290	0	0	0	0	0	0	0
1/13/2020 0:47:30	-275	-548	0	-303	0	0	0	0	0	0	0
1/13/2020 0:52:30	-270.3333333	-523.6666667	0	-307.3333333	0	0	0	0	0	0	0
1/13/2020 0:57:30	-266	-527.3333333	0	-294	0	0	0	0	0	0	0
1/13/2020 1:02:30	-266	-527.6666667	0	-280	0	0	0	0	0	0	0
1/13/2020 1:07:30	-277	-551.3333333	0	-309.6666667	0	0	0	0	0	0	0
1/13/2020 1:12:30	-256	-502	0	-294	0	0	0	0	0	0	0
1/13/2020 1:17:30	-258	-510	0	-276.3333333	0	0	0	0	0	0	0
1/13/2020 1:22:30	-272.3333333	-548.6666667	0	-284	0	0	0	0	0	0	0
1/13/2020 1:27:30	-281.3333333	-558	0	-312	0	0	0	0	0	0	0
1/13/2020 1:32:30	-272.5	-548	0	-305	0	0	0	0	0	0	0
1/13/2020 1:37:30	-260.6666667	-517.6666667	0	-291.6666667	0	0	0	0	0	0	0
1/13/2020 1:42:30	-275.6666667	-554.6666667	0	-307	0	0	0	0	0	0	0
1/13/2020 1:47:30	-290.5	-567.6666667	0	-317.6666667	0	0	0	0	0	0	0
1/13/2020 1:52:30	-267.5	-547.5	0	-294.5	0	0	0	0	0	0	0
1/13/2020 1:57:30	-262.6666667	-510.3333333	0	-295.6666667	0	0	0	0	0	0	0
1/13/2020 2:02:30	-272	-537	0	-303.3333333	0	0	0	0	0	0	0
1/13/2020 2:07:30	-284	-563	0	-317.3333333	0	0	0	0	0	0	0
1/13/2020 2:12:30	-263.3333333	-517.6666667	0	-284	0	0	0	0	0	0	0
1/13/2020 2:17:30	-273.6666667	-541	0	-301.3333333	0	0	0	0	0	0	0
1/13/2020 2:22:30	-280.3333333	-555.3333333	0	-324.3333333	0	0	0	0	0	0	0
1/13/2020 2:27:30	-293	-581.3333333	0	-326	0	0	0	0	0	0	0
1/13/2020 2:32:30	-269	-528.5	0	-279	0	0	0	0	0	0	0
1/13/2020 2:37:30	-270.6666667	-504.3333333	0	-296.3333333	0	0	0	0	0	0	0
1/13/2020 2:42:30	-279	-550.3333333	0	-314.5	0	0	0	0	0	0	0
1/13/2020 2:47:30	-283	-576.5	0	-298	0	0	0	0	0	0	0
1/13/2020 2:52:30	-272.5	-541.5	0	-295	0	0	0	0	0	0	0
1/13/2020 2:57:30	-258.6666667	-515.3333333	0	-287.6666667	0	0	0	0	0	0	0
1/13/2020 3:02:30	-285	-549.3333333	0	-322.6666667	0	0	0	0	0	0	0
1/13/2020 3:07:30	-270	-550	0	-299.3333333	0	0	0	0	0	0	0
1/13/2020 3:12:30	-263.5	-520.5	0	-280.6666667	0	0	0	0	0	0	0
1/13/2020 3:17:30	-279.3333333	-528.6666667	0	-304	0	0	0	0	0	0	0
1/13/2020 3:22:30	-281	-556	0	-318.3333333	0	0	0	0	0	0	0
1/13/2020 3:27:30	-289.5	-574.6666667	0	-316	0	0	0	0	0	0	0
1/13/2020 3:32:30	-269	-546	0	-282	0	0	0	0	0	0	0
1/13/2020 3:37:30	-261.6666667	-538	0	-302	0	0	0	0	0	0	0
1/13/2020 3:42:30	-277.3333333	-550	0	-309	0	0	0	0	0	0	0
1/13/2020 3:47:30	-279	-550	0	-296.3333333	0	0	0	0	0	0	0
1/13/2020 3:52:30	-272.6666667	-542.6666667	0	-323	0	0	0	0	0	0	0
1/13/2020 3:57:30	-294.5	-583.5	0	-330.3333333	0	0	0	0	0	0	0
1/13/2020 4:02:30	-275.6666667	-536.3333333	0	-311	0	0	0	0	0	0	0
1/13/2020 4:07:30	-274	-539	0	-294	0	0	0	0	0	0	0
1/13/2020 4:12:30	-263.3333333	-540	0	-287.3333333	0	0	0	0	0	0	0
1/13/2020 4:17:30	-285.3333333	-563	0	-313.3333333	0	0	0	0	0	0	0
1/13/2020 4:22:30	-296.6666667	-573	0	-329.3333333	0	0	0	0	0	0	0
1/13/2020 4:27:30	-286	-573.6666667	0	-318.3333333	0	0	0	0	0	0	0
1/13/2020 4:32:30	-272	-537.6666667	0	-275	0	0	0	0	0	0	0
1/13/2020 4:37:30	-270	-522.3333333	0	-300	0	0	0	0	0	0	0
1/13/2020 4:42:30	-271.6666667	-546	0	-302	0	0	0	0	0	0	0
1/13/2020 4:47:30	-281.6666667	-556.6666667	0	-298.6666667	0	0	0	0	0	0	0
1/13/2020 4:52:30	-293.3333333	-581.6666667	0	-312.6666667	0	0	0	0	0	0	0
1/13/2020 4:57:30	-285	-574	0	-319.6666667	0	0	0	0	0	0	0
1/13/2020 5:02:30	-279	-538.3333333	0	-295.3333333	0	0	0	0	0	0	0
1/13/2020 5:07:30	-281	-555	0	-300.6666667	0	0	0	0	0	0	0
1/13/2020 5:12:30	-291	-578	0	-342.3333333	0	0	0	0	0	0	0
1/13/2020 5:17:30	-285.3333333	-535.3333333	0	-324.6666667	0	0	0	0	0	0	0
1/13/2020 5:22:30	-281	-561.6666667	0	-318.6666667	0	0	0	0	0	0	0
1/13/2020 5:27:30	-276.3333333	-542.3333333	0	-298.6666667	0	0	0	0	0	0	0
1/13/2020 5:32:30	-307	-612.3333333	0	-342.5	0	0	0	0	0	0	0
1/13/2020 5:37:30	-278.6666667	-552	0	-310.6666667	0	0	0	0	0	0	0
1/13/2020 5:42:30	-263.6666667	-518	0	-316	0	0	0	0	0	0	0
1/13/2020 5:47:30	-298	-573.3333333	0	-340	0	0	0	0	0	0	0
1/13/2020 5:52:30	-276	-539.6666667	0	-300.6666667	0	0	0	0	0	0	0
1/13/2020 5:57:30	-297.6666667	-589.3333333	0	-347.5	0	0	0	0	0	0	0
1/13/2020 6:02:30	-284	-552.6666667	0	-323.6666667	0	0	0	0	0	0	0
1/13/2020 6:07:30	-275	-544	0	-300.6666667	0	0	0	0	0	0	0
1/13/2020 6:12:30	-306	-616.3333333	0	-342	0	0	0	0	0	0	0
1/13/2020 6:17:30	-282.6666667	-565.3333333	0	-336.3333333	0	0	0	0	0	0	0
1/13/2020 6:22:30	-286	-562.6666667	0	-335.5	0	0	0	0	0	0	0
1/13/2020 6:27:30	-287.3333333	-566.6666667	0	-320	0	0	0	0	0	0	0
1/13/2020 6:32:30	-302.3333333	-595.5	0	-346	0	0	0	0	0	0	0
1/13/2020 6:37:30	-293	-579	0	-305.6666667	0	0	0	0	0	0	0
1/13/2020 6:42:30	-288.5	-569.3333333	0	-295.3333333	0	0	0	0	0	0	0
1/13/2020 6:47:30	-305	-583.3333333	0	-332	0	0	0	0	0	0	0
1/13/2020 6:52:30	-297	-582.6666667	0	-339.3333333	0	0	0	0	0	0	0
1/13/2020 6:57:30	-279	-583	0	-323.5	0	0	0	0	0	0	0
1/13/2020 7:02:30	-269.6666667	-525.6666667	0	-299.6666667	0	0	0	0	0	0	0
1/13/2020 7:07:30	-292.3333333	-553.3333333	0	-299.3333333	0	0	0	0	0	0	0
1/13/2020 7:12:30	-306.3333333	-618.3333333	0	-347.6666667	0	0	0	0	0	0	0
1/13/2020 7:17:30	-278.3333333	-551	0	-314.5	0	0	0	0	0	0	0
1/13/2020 7:22:30	-284	-542	0	-314.6666667	0	0	0	0	0	0	0
1/13/2020 7:27:30	-301	-594	0	-338	0	0	0	0	0	0	0
1/13/2020 7:32:30	-276.5	-569	0	-327	0	0	0	0	0	0	0
1/13/2020 7:37:30	-269	-549	0	-307	0	0	0	0	0	0	0
1/13/2020 7:42:30	-281.3333333	-548	0	-281.6666667	0	0	0	0	0	0	0
1/13/2020 7:47:30	-311.6666667	-629	0	-373	0	0	0	0	0	0	0
1/13/2020 7:52:30	-295.5	-587	0	-312.3333333	0	0	0	0	0	0	0
1/13/2020 7:57:30	-287	-578	0	-329	0	0	0	0	0	0	0
1/13/2020 8:02:30	-276.6666667	-549	0	-306.6666667	0	0	0	0	0	0	0
1/13/2020 8:07:30	-297	-615.3333333	0	-359.5	0	0	0	0	0	0	0
1/13/2020 8:12:30	-320	-613	0	-338.3333333	0	0	0	0	0	0	0
1/13/2020 8:17:30	-282.6666667	-560	0	-330	0	0	0	0	0	0	0

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/13/2020 8:22:30	-282.3333333	-566.3333333	0	-299	0	0	0	0	0	0	0
1/13/2020 8:27:30	-302.6666667	-597.6666667	0	-339	0	0	0	0	0	0	0
1/13/2020 8:32:30	-296.6666667	-599	0	-358	0	0	0	0	0	0	0
1/13/2020 8:37:30	-280.3333333	-551	0	-323	0	0	0	0	0	0	0
1/13/2020 8:42:30	-291.6666667	-564.3333333	0	-322	0	0	0	0	0	0	0
1/13/2020 8:47:30	-295	-584.3333333	0	-332	0	0	0	0	0	0	0
1/13/2020 8:52:30	-313	-618	0	-362.3333333	0	0	0	0	0	0	0
1/13/2020 8:57:30	-274	-533.6666667	0	-298	0	0	0	0	0	0	0
1/13/2020 9:02:30	-282.6666667	-555.3333333	0	-297	0	0	0	0	0	0	0
1/13/2020 9:07:30	-302	-592	0	-347.6666667	0	0	0	0	0	0	0
1/13/2020 9:12:30	-293.6666667	-584.6666667	0	-340	0	0	0	0	0	0	0
1/13/2020 9:17:30	-296.6666667	-604	0	-342	0	0	0	0	0	0	0
1/13/2020 9:22:30	-314	-625.3333333	0	-369	0	0	0	0	0	0	0
1/13/2020 9:27:30	-327	-629.3333333	0	-370.6666667	0	0	0	0	0	0	0
1/13/2020 9:32:30	-286.3333333	-569	0	-332	0	0	0	0	0	0	0
1/13/2020 9:37:30	-311	-620.6666667	0	-357	0	0	0	0	0	0	0
1/13/2020 9:42:30	-301.6666667	-609.5	0	-339	0	0	0	0	0	0	0
1/13/2020 9:47:30	-298.6666667	-583	0	-326	0	0	0	0	0	0	0
1/13/2020 9:52:30	-327	-649.3333333	0	-361.3333333	0	0	0	0	0	0	0
1/13/2020 9:57:30	-293.3333333	-595.3333333	0	-343	0	0	0	0	0	0	0
1/13/2020 10:02:30	-292.3333333	-575	0	-324.6666667	0	0	0	0	0	0	0
1/13/2020 10:07:30	-295	-585.6666667	0	-335	0	0	0	0	0	0	0
1/13/2020 10:12:30	-313.6666667	-613.3333333	0	-383	0	0	0	0	0	0	0
1/13/2020 10:17:30	-302.5	-607.5	0	-351	0	0	0	0	0	0	0
1/13/2020 10:22:30	-284.3333333	-574.3333333	0	-333.6666667	0	0	0	0	0	0	0
1/13/2020 10:27:30	-303.6666667	-597.3333333	0	-325.3333333	0	0	0	0	0	0	0
1/13/2020 10:32:30	-305.6666667	-631	0	-348.3333333	0	0	0	0	0	0	0
1/13/2020 10:37:30	-310	-617	0	-336.3333333	0	0	0	0	0	0	0
1/13/2020 10:42:30	-276.6666667	-535.3333333	0	-290.3333333	0	0	0	0	0	0	0
1/13/2020 10:47:30	-295.6666667	-575.3333333	0	-327	0	0	0	0	0	0	0
1/13/2020 10:52:30	-315	-617	0	-361.3333333	0	0	0	0	0	0	0
1/13/2020 10:57:30	-291.3333333	-571.3333333	0	-329.6666667	0	0	0	0	0	0	0
1/13/2020 11:02:30	-275.6666667	-545.3333333	0	-297	0	0	0	0	0	0	0
1/13/2020 11:07:30	-314.6666667	-626	0	-361	0	0	0	0	0	0	0
1/13/2020 11:12:30	-308	-635.6666667	0	-358	0	0	0	0	0	0	0
1/13/2020 11:17:30	-304.5	-603.6666667	0	-352	0	0	0	0	0	0	0
1/13/2020 11:22:30	-277.3333333	-579.3333333	0	-342.3333333	0	0	0	0	0	0	0
1/13/2020 11:27:30	-311.6666667	-624	0	-359.3333333	0	0	0	0	0	0	0
1/13/2020 11:32:30	-308	-598.3333333	0	-331.5	0	0	0	0	0	0	0
1/13/2020 11:37:30	-275.6666667	-549.6666667	0	-304.3333333	0	0	0	0	0	0	0
1/13/2020 11:42:30	-329.3333333	-636.6666667	0	-389.6666667	0	0	0	0	0	0	0
1/13/2020 11:47:30	-344	-688	0	-411	0	0	0	0	0	0	0
1/13/2020 11:52:30	-315.3333333	-603.3333333	0	-332	0	0	0	0	0	0	0
1/13/2020 11:57:30	-297.3333333	-630.3333333	0	-320.6666667	0	0	0	0	0	0	0
1/13/2020 12:02:30	-299	-600.3333333	0	-345.6666667	0	0	0	0	0	0	0
1/13/2020 12:07:30	-309.3333333	-653.5	0	-371	0	0	0	0	0	0	0
1/13/2020 12:12:30	-291.3333333	-619.3333333	0	-317	0	0	0	0	0	0	0
1/13/2020 12:17:30	-312	-606	0	-351.6666667	0	0	0	0	0	0	0
1/13/2020 12:22:30	-328.3333333	-655.3333333	0	-397	0	0	0	0	0	0	0
1/13/2020 12:27:30	-320	-636.3333333	0	-349.3333333	0	0	0	0	0	0	0
1/13/2020 12:32:30	-315	-609.3333333	0	-352.3333333	0	0	0	0	0	0	0
1/13/2020 12:37:30	-322	-638	0	-393	0	0	0	0	0	0	0
1/13/2020 12:42:30	-278.6666667	-561.6666667	0	-337.6666667	0	0	0	0	0	0	0
1/13/2020 12:47:30	-327.3333333	-645.6666667	0	-377.6666667	0	0	0	0	0	0	0
1/13/2020 12:52:30	-303.6666667	-611	0	-340	0	0	0	0	0	0	0
1/13/2020 12:57:30	-319	-613	0	-334	0	0	0	0	0	0	0
1/13/2020 13:02:30	-305	-590.3333333	0	-343.6666667	0	0	0	0	0	0	0
1/13/2020 13:07:30	-334	-654.5	0	-389	0	0	0	0	0	0	0
1/13/2020 13:12:30	-328	-638.6666667	0	-364	0	0	0	0	0	0	0
1/13/2020 13:17:30	-326.5	-666.3333333	0	-367.6666667	0	0	0	0	0	0	0
1/13/2020 13:22:30	-308.3333333	-596.6666667	0	-339.6666667	0	0	0	0	0	0	0
1/13/2020 13:27:30	-318	-630.6666667	0	-354	0	0	0	0	0	0	0
1/13/2020 13:32:30	-337	-668.3333333	0	-363.6666667	0	0	0	0	0	0	0
1/13/2020 13:37:30	-315.5	-653	0	-356.5	0	0	0	0	0	0	0
1/13/2020 13:42:30	-308	-614.3333333	0	-343.3333333	0	0	0	0	0	0	0
1/13/2020 13:47:30	-315	-639.3333333	0	-361.6666667	0	0	0	0	0	0	0
1/13/2020 13:52:30	-339.5	-666.3333333	0	-397	0	0	0	0	0	0	0
1/13/2020 13:57:30	-334.3333333	-646	0	-360	0	0	0	0	0	0	0
1/13/2020 14:02:30	-333	-639	0	-364.6666667	0	0	0	0	0	0	0
1/13/2020 14:07:30	-313.6666667	-610	0	-351.3333333	0	0	0	0	0	0	0
1/13/2020 14:12:30	-316.3333333	-624.6666667	0	-325.3333333	0	0	0	0	0	0	0
1/13/2020 14:17:30	-336.6666667	-664.6666667	0	-369.6666667	0	0	0	0	0	0	0
1/13/2020 14:22:30	-319	-631.3333333	0	-349.5	0	0	0	0	0	0	0
1/13/2020 14:27:30	-315	-620.6666667	0	-359.6666667	0	0	0	0	0	0	0
1/13/2020 14:32:30	-319	-641	0	-349.5	0	0	0	0	0	0	0
1/13/2020 14:37:30	-327.3333333	-647.3333333	0	-321.3333333	0	0	0	0	0	0	0
1/13/2020 14:42:30	-322.3333333	-613.3333333	0	-338.3333333	0	0	0	0	0	0	0
1/13/2020 14:47:30	-336	-662.6666667	0	-366.3333333	0	0	0	0	0	0	0
1/13/2020 14:52:30	-339	-665.6666667	0	-360.6666667	0	0	0	0	0	0	0
1/13/2020 14:57:30	-341.6666667	-672	0	-370	0	0	0	0	0	0	0
1/13/2020 15:02:30	-314.5	-625	0	-356	0	0	0	0	0	0	0
1/13/2020 15:07:30	-303.6666667	-597.3333333	0	-347	0	0	0	0	0	0	0
1/13/2020 15:12:30	-326.3333333	-640	0	-355.3333333	0	0	0	0	0	0	0
1/13/2020 15:17:30	-331.3333333	-659.6666667	0	-360.3333333	0	0	0	0	0	0	0
1/13/2020 15:22:30	-309	-622.5	0	-348.5	0	0	0	0	0	0	0
1/13/2020 15:27:30	-315	-585	0	-319.6666667	0	0	0	0	0	0	0
1/13/2020 15:32:30	-334.6666667	-659	0	-362.3333333	0	0	0	0	0	0	0
1/13/2020 15:37:30	-330.6666667	-666	0	-348.3333333	0	0	0	0	0	0	0
1/13/2020 15:42:30	-308.3333333	-601.6666667	0	-333.3333333	0	0	0	0	0	0	0
1/13/2020 15:47:30	-324.3333333	-640	0	-349.6666667	0	0	0	0	0	0	0
1/13/2020 15:52:30	-326.3333333	-646.3333333	0	-369.3333333	0	0	0	0	0	0	0
1/13/2020 15:57:30	-337	-680	0	-359.3333333	0	0	0	0	0	0	0
1/13/2020 16:02:30	-330.5	-671	0	-355	0	0	0	0	0	0	0
1/13/2020 16:07:30	-316.3333333	-621.3333333	0	-333.3333333	0	0	0	0	0	0	0
1/13/2020 16:12:30	-338.5	-653	0	-365	0	0	0	0	0	0	0
1/13/2020 16:17:30	-333	-681.6666667	0	-360	0	0	0	0	0	0	0
1/13/2020 16:22:30	-332.6666667	-669.6666667	0	-360.6666667	0	0	0	0	0	0	0
1/13/2020 16:27:30	-342.5	-664.6666667	0	-388.3333333	0	0	0	0	0	0	0
1/13/2020 16:32:30	-341.5	-663.6666667	0	-362.6666667	0	0	0	0	0	0	0
1/13/2020 16:37:30	-333.3333333	-662.6666667	0	-360.6666667	0	0	0	0	0	0	0

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/13/2020 16:42:30	-317.3333333	-617.6666667	0	-351.6666667	0	0	0	0	0	0	0
1/13/2020 16:47:30	-320.6666667	-640	0	-353.3333333	0	0	0	0	0	0	0
1/13/2020 16:52:30	-340.6666667	-654.3333333	0	-371	0	0	0	0	0	0	0
1/13/2020 16:57:30	-357.5	-711	0	-382.5	0	0	0	0	0	0	0
1/13/2020 17:02:30	-331.3333333	-653	0	-353.3333333	0	0	0	0	0	0	0
1/13/2020 17:07:30	-324.3333333	-630.6666667	0	-359.6666667	0	0	0	0	0	0	0
1/13/2020 17:12:30	-344.5	-688.3333333	0	-378.3333333	0	0	0	0	0	0	0
1/13/2020 17:17:30	-349	-689	0	-377.6666667	0	0	0	0	0	0	0
1/13/2020 17:22:30	-335	-651.3333333	0	-380	0	0	0	0	0	0	0
1/13/2020 17:27:30	-349.6666667	-688.6666667	0	-377.3333333	0	0	0	0	0	0	0
1/13/2020 17:32:30	-340.3333333	-698.3333333	0	-396	0	0	0	0	0	0	0
1/13/2020 17:37:30	-338	-690	0	-395	0	0	0	0	0	0	0
1/13/2020 17:42:30	-327.3333333	-638.3333333	0	-362.3333333	0	0	0	0	0	0	0
1/13/2020 17:47:30	-338.3333333	-679	0	-393	0	0	0	0	0	0	0
1/13/2020 17:52:30	-369	-729.3333333	0	-424.6666667	0	0	0	0	0	0	0
1/13/2020 17:57:30	-371.3333333	-714	0	-409	0	0	0	0	0	0	0
1/13/2020 18:02:30	-332	-640.6666667	0	-366	0	0	0	0	0	0	0
1/13/2020 18:07:30	-348.6666667	-690.3333333	0	-395.3333333	0	0	0	0	0	0	0
1/13/2020 18:12:30	-343.3333333	-677.6666667	0	-392	0	0	0	0	0	0	0
1/13/2020 18:17:30	-326	-636.6666667	0	-356.6666667	0	0	0	0	0	0	0
1/13/2020 18:22:30	-325.6666667	-652.3333333	0	-359.3333333	0	0	0	0	0	0	0
1/13/2020 18:27:30	-371	-734.3333333	0	-437.3333333	0	0	0	0	0	0	0
1/13/2020 18:32:30	-358.3333333	-710.3333333	0	-409	0	0	0	0	0	0	0
1/13/2020 18:37:30	-338.3333333	-676.6666667	0	-362.3333333	0	0	0	0	0	0	0
1/13/2020 18:42:30	-340.3333333	-688.3333333	0	-380.6666667	0	0	0	0	0	0	0
1/13/2020 18:47:30	-349.3333333	-707.6666667	0	-390.6666667	0	0	0	0	0	0	0
1/13/2020 18:52:30	-343	-688.6666667	0	-413.3333333	0	0	0	0	0	0	0
1/13/2020 18:57:30	-337.6666667	-664.3333333	0	-387.3333333	0	0	0	0	0	0	0
1/13/2020 19:02:30	-344	-691.3333333	0	-405.6666667	0	0	0	0	0	0	0
1/13/2020 19:07:30	-338	-674	0	-396	0	0	0	0	0	0	0
1/13/2020 19:12:30	-337	-662.6666667	0	-374.3333333	0	0	0	0	0	0	0
1/13/2020 19:17:30	-343.5	-701.5	0	-380.3333333	0	0	0	0	0	0	0
1/13/2020 19:22:30	-346.6666667	-691.3333333	0	-409.6666667	0	0	0	0	0	0	0
1/13/2020 19:27:30	-343.6666667	-684	0	-408.5	0	0	0	0	0	0	0
1/13/2020 19:32:30	-337	-687.5	0	-372.5	0	0	0	0	0	0	0
1/13/2020 19:37:30	-355.3333333	-700.3333333	0	-398.6666667	0	0	0	0	0	0	0
1/13/2020 19:42:30	-334	-682.6666667	0	-368.3333333	0	0	0	0	0	0	0
1/13/2020 19:47:30	-348.6666667	-679.6666667	0	-399.3333333	0	0	0	0	0	0	0
1/13/2020 19:52:30	-345.3333333	-677	0	-397.5	0	0	0	0	0	0	0
1/13/2020 19:57:30	-359	-695.3333333	0	-391.3333333	0	0	0	0	0	0	0
1/13/2020 20:02:30	-338.6666667	-669	0	-384.5	0	0	0	0	0	0	0
1/13/2020 20:07:30	-332	-664.6666667	0	-363.6666667	0	0	0	0	0	0	0
1/13/2020 20:12:30	-355	-700.6666667	0	-402	0	0	0	0	0	0	0
1/13/2020 20:17:30	-347	-666.3333333	0	-387.6666667	0	0	0	0	0	0	0
1/13/2020 20:22:30	-365	-726.6666667	0	-442	0	0	0	0	0	0	0
1/13/2020 20:27:30	-338	-669	0	-376	0	0	0	0	0	0	0
1/13/2020 20:32:30	-358	-708.6666667	0	-401	0	0	0	0	0	0	0
1/13/2020 20:37:30	-346	-689.3333333	0	-413.3333333	0	0	0	0	0	0	0
1/13/2020 20:42:30	-326.6666667	-657.5	0	-360	0	0	0	0	0	0	0
1/13/2020 20:47:30	-333	-662.6666667	0	-366.3333333	0	0	0	0	0	0	0
1/13/2020 20:52:30	-339.3333333	-693.5	0	-389.3333333	0	0	0	0	0	0	0
1/13/2020 20:57:30	-334.3333333	-663	0	-389.6666667	0	0	0	0	0	0	0
1/13/2020 21:02:30	-340	-680	0	-390	0	0	0	0	0	0	0
1/13/2020 21:07:30	-338.3333333	-668	0	-390	0	0	0	0	0	0	0
1/13/2020 21:12:30	-337.5	-660.6666667	0	-374	0	0	0	0	0	0	0
1/13/2020 21:17:30	-340	-678	0	-408	0	0	0	0	0	0	0
1/13/2020 21:22:30	-309.3333333	-632	0	-364.5	0	0	0	0	0	0	0
1/13/2020 21:27:30	-335.6666667	-663.6666667	0	-362	0	0	0	0	0	0	0
1/13/2020 21:32:30	-358.3333333	-705.3333333	0	-402.3333333	0	0	0	0	0	0	0
1/13/2020 21:37:30	-328	-642	0	-379	0	0	0	0	0	0	0
1/13/2020 21:42:30	-292.6666667	-579.6666667	0	-336	0	0	0	0	0	0	0
1/13/2020 21:47:30	-339	-647	0	-352	0	0	0	0	0	0	0
1/13/2020 21:52:30	-350	-700.3333333	0	-416.3333333	0	0	0	0	0	0	0
1/13/2020 21:57:30	-311	-626.3333333	0	-349.6666667	0	0	0	0	0	0	0
1/13/2020 22:02:30	-334.3333333	-623.3333333	0	-374.3333333	0	0	0	0	0	0	0
1/13/2020 22:07:30	-342.3333333	-682.3333333	0	-409.3333333	0	0	0	0	0	0	0
1/13/2020 22:12:30	-348.6666667	-689.5	0	-404	0	0	0	0	0	0	0
1/13/2020 22:17:30	-329	-653	0	-380.6666667	0	0	0	0	0	0	0
1/13/2020 22:22:30	-332.3333333	-648.3333333	0	-366.6666667	0	0	0	0	0	0	0
1/13/2020 22:27:30	-336.3333333	-639.3333333	0	-384.6666667	0	0	0	0	0	0	0
1/13/2020 22:32:30	-314	-637.3333333	0	-372.6666667	0	0	0	0	0	0	0
1/13/2020 22:37:30	-323	-655.3333333	0	-391.3333333	0	0	0	0	0	0	0
1/13/2020 22:42:30	-335	-665.3333333	0	-397.6666667	0	0	0	0	0	0	0
1/13/2020 22:47:30	-311.5	-618	0	-371	0	0	0	0	0	0	0
1/13/2020 22:52:30	-319	-635.3333333	0	-361	0	0	0	0	0	0	0
1/13/2020 22:57:30	-348	-693.3333333	0	-412	0	0	0	0	0	0	0
1/13/2020 23:02:30	-317.3333333	-631.3333333	0	-375.6666667	0	0	0	0	0	0	0
1/13/2020 23:07:30	-332	-684	0	-414	0	0	0	0	0	0	0
1/13/2020 23:12:30	-292	-592.3333333	0	-358.6666667	0	0	0	0	0	0	0
1/13/2020 23:17:30	-321.3333333	-608	0	-386	0	0	0	0	0	0	0
1/13/2020 23:22:30	-327.5	-662	0	-391	0	0	0	0	0	0	0
1/13/2020 23:27:30	-303	-619.3333333	0	-363.3333333	0	0	0	0	0	0	0
1/13/2020 23:32:30	-313.3333333	-631	0	-388.6666667	0	0	0	0	0	0	0
1/13/2020 23:37:30	-310.3333333	-622.3333333	0	-382	0	0	0	0	0	0	0
1/13/2020 23:42:30	-333.6666667	-658	0	-411	0	0	0	0	0	0	0
1/13/2020 23:47:30	-310.6666667	-622	0	-362	0	0	0	0	0	0	0
1/13/2020 23:52:30	-291.3333333	-577.3333333	0	-353	0	0	0	0	0	0	0
1/13/2020 23:57:30	-328	-657.3333333	0	-417	0	0	0	0	0	0	0
1/14/2020 0:02:30	-325.6666667	-633	0	-353.3333333	0	0	0	0	0	0	0
1/14/2020 0:07:30	-329	-651.5	0	-361	0	0	0	0	0	0	0
1/14/2020 0:12:30	-305.3333333	-587.6666667	0	-346	0	0	0	0	0	0	0
1/14/2020 0:17:30	-314.6666667	-619	0	-400.3333333	0	0	0	0	0	0	0
1/14/2020 0:22:30	-300.6666667	-599.3333333	0	-348.3333333	0	0	0	0	0	0	0
1/14/2020 0:27:30	-288	-569.3333333	0	-329.3333333	0	0	0	0	0	0	0
1/14/2020 0:32:30	-317.3333333	-618	0	-386	0	0	0	0	0	0	0
1/14/2020 0:37:30	-289.3333333	-609.6666667	0	-365.5	0	0	0	0	0	0	0
1/14/2020 0:42:30	-328.5	-650.6666667	0	-359	0	0	0	0	0	0	0
1/14/2020 0:47:30	-336.6666667	-648	0	-431	0	0	0	0	0	0	0
1/14/2020 0:52:30	-316.6666667	-634.6666667	0	-392.3333333	0	0	0	0	0	0	0
1/14/2020 0:57:30	-306	-613.3333333	0	-391.5	0	0	0	0	0	0	0

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/14/2020 1:02:30	-316.6666667	-606	0	-365.6666667	0	0	0	0	0	0	0
1/14/2020 1:07:30	-315	-619	0	-380	0	0	0	0	0	0	0
1/14/2020 1:12:30	-314.5	-630.6666667	0	-406.6666667	0	0	0	0	0	0	0
1/14/2020 1:17:30	-294	-588.6666667	0	-344	0	0	0	0	0	0	0
1/14/2020 1:22:30	-318.6666667	-624	0	-363	0	0	0	0	0	0	0
1/14/2020 1:27:30	-333.5	-673.5	0	-415.3333333	0	0	0	0	0	0	0
1/14/2020 1:32:30	-322	-648.3333333	0	-387.3333333	0	0	0	0	0	0	0
1/14/2020 1:37:30	-304.6666667	-601.3333333	0	-355	0	0	0	0	0	0	0
1/14/2020 1:42:30	-327	-647.6666667	0	-366	0	0	0	0	0	0	0
1/14/2020 1:47:30	-312.5	-613.6666667	0	-391.6666667	0	0	0	0	0	0	0
1/14/2020 1:52:30	-290	-571.6666667	0	-345	0	0	0	0	0	0	0
1/14/2020 1:57:30	-311.3333333	-623	0	-370	0	0	0	0	0	0	0
1/14/2020 2:02:30	-336.3333333	-654.6666667	0	-398.3333333	0	0	0	0	0	0	0
1/14/2020 2:07:30	-292.6666667	-584	0	-344	0	0	0	0	0	0	0
1/14/2020 2:12:30	-308.3333333	-599	0	-364.3333333	0	0	0	0	0	0	0
1/14/2020 2:17:30	-322.3333333	-650.6666667	0	-402	0	0	0	0	0	0	0
1/14/2020 2:22:30	-287.3333333	-563.6666667	0	-345.5	0	0	0	0	0	0	0
1/14/2020 2:27:30	-319.6666667	-618.3333333	0	-364.3333333	0	0	0	0	0	0	0
1/14/2020 2:32:30	-331.6666667	-661.6666667	0	-420.3333333	0	0	0	0	0	0	0
1/14/2020 2:37:30	-343.5	-687.6666667	0	-425.3333333	0	0	0	0	0	0	0
1/14/2020 2:42:30	-277.6666667	-562.6666667	0	-333.3333333	0	0	0	0	0	0	0
1/14/2020 2:47:30	-322	-639	0	-351.3333333	0	0	0	0	0	0	0
1/14/2020 2:52:30	-348	-675	0	-422.3333333	0	0	0	0	0	0	0
1/14/2020 2:57:30	-342.3333333	-679.6666667	0	-428	0	0	0	0	0	0	0
1/14/2020 3:02:30	-327.6666667	-675.5	0	-410.3333333	0	0	0	0	0	0	0
1/14/2020 3:07:30	-325.3333333	-636	0	-392	0	0	0	0	0	0	0
1/14/2020 3:12:30	-308	-619	0	-391.3333333	0	0	0	0	0	0	0
1/14/2020 3:17:30	-309.3333333	-626	0	-377.6666667	0	0	0	0	0	0	0
1/14/2020 3:22:30	-305	-596.3333333	0	-366.3333333	0	0	0	0	0	0	0
1/14/2020 3:27:30	-344.5	-686	0	-403.6666667	0	0	0	0	0	0	0
1/14/2020 3:32:30	-313	-638.3333333	0	-368.3333333	0	0	0	0	0	0	0
1/14/2020 3:37:30	-278	-561	0	-336.3333333	0	0	0	0	0	0	0
1/14/2020 3:42:30	-332.6666667	-663.6666667	0	-392.3333333	0	0	0	0	0	0	0
1/14/2020 3:47:30	-355.5	-702.5	0	-457.5	0	0	0	0	0	0	0
1/14/2020 3:52:30	-293.6666667	-544.3333333	0	-334	0	0	0	0	0	0	0
1/14/2020 3:57:30	-280.3333333	-557.3333333	0	-336.6666667	0	0	0	0	0	0	0
1/14/2020 4:02:30	-332	-638.6666667	0	-381	0	0	0	0	0	0	0
1/14/2020 4:07:30	-341	-674.6666667	0	-430.5	0	0	0	0	0	0	0
1/14/2020 4:12:30	-294.3333333	-582.3333333	0	-361.3333333	0	0	0	0	0	0	0
1/14/2020 4:17:30	-314	-637.3333333	0	-377.5	0	0	0	0	0	0	0
1/14/2020 4:22:30	-334.5	-653.6666667	0	-375.6666667	0	0	0	0	0	0	0
1/14/2020 4:27:30	-285	-571	0	-338.3333333	0	0	0	0	0	0	0
1/14/2020 4:32:30	-310.6666667	-616	0	-386.3333333	0	0	0	0	0	0	0
1/14/2020 4:37:30	-304.5	-636	0	-363.5	0	0	0	0	0	0	0
1/14/2020 4:42:30	-280.3333333	-572.3333333	0	-340.3333333	0	0	0	0	0	0	0
1/14/2020 4:47:30	-293.3333333	-577.3333333	0	-330.6666667	0	0	0	0	0	0	0
1/14/2020 4:52:30	-320	-657	0	-403.5	0	0	0	0	0	0	0
1/14/2020 4:57:30	-307.3333333	-613.3333333	0	-349.3333333	0	0	0	0	0	0	0
1/14/2020 5:02:30	-290.6666667	-574.6666667	0	-353	0	0	0	0	0	0	0
1/14/2020 5:07:30	-293.3333333	-582.6666667	0	-360.3333333	0	0	0	0	0	0	0
1/14/2020 5:12:30	-305.6666667	-615	0	-380	0	0	0	0	0	0	0
1/14/2020 5:17:30	-317.6666667	-626.6666667	0	-330	0	0	0	0	0	0	0
1/14/2020 5:22:30	-337.6666667	-674	0	-392	0	0	0	0	0	0	0
1/14/2020 5:27:30	-298	-585.6666667	0	-385.5	0	0	0	0	0	0	0
1/14/2020 5:32:30	-294.3333333	-577.6666667	0	-319.3333333	0	0	0	0	0	0	0
1/14/2020 5:37:30	-289.6666667	-571.6666667	0	-349.3333333	0	0	0	0	0	0	0
1/14/2020 5:42:30	-306.3333333	-596.6666667	0	-385.3333333	0	0	0	0	0	0	0
1/14/2020 5:47:30	-311.5	-617.3333333	0	-363.6666667	0	0	0	0	0	0	0
1/14/2020 5:52:30	-302.3333333	-591.3333333	0	-358	0	0	0	0	0	0	0
1/14/2020 5:57:30	-310	-629.6666667	0	-357.6666667	0	0	0	0	0	0	0
1/14/2020 6:02:30	-301.6666667	-598.6666667	0	-342	0	0	0	0	0	0	0
1/14/2020 6:07:30	-315.3333333	-626.6666667	0	-335.3333333	0	0	0	0	0	0	0
1/14/2020 6:12:30	-307	-613.6666667	0	-370	0	0	0	0	0	0	0
1/14/2020 6:17:30	-306.6666667	-594.3333333	0	-351	0	0	0	0	0	0	0
1/14/2020 6:22:30	-341.5	-665.6666667	0	-400	0	0	0	0	0	0	0
1/14/2020 6:27:30	-300.6666667	-586.6666667	0	-355.3333333	0	0	0	0	0	0	0
1/14/2020 6:32:30	-326.5	-618	0	-385.5	0	0	0	0	0	0	0
1/14/2020 6:37:30	-315	-605.3333333	0	-357	0	0	0	0	0	0	0
1/14/2020 6:42:30	-306.6666667	-615.3333333	0	-344	0	0	0	0	0	0	0
1/14/2020 6:47:30	-270.3333333	-536	0	-324	0	0	0	0	0	0	0
1/14/2020 6:52:30	-302.3333333	-585.6666667	0	-349.3333333	0	0	0	0	0	0	0
1/14/2020 6:57:30	-334	-679	0	-379	0	0	0	0	0	0	0
1/14/2020 7:02:30	-297.3333333	-575.3333333	0	-316.3333333	0	0	0	0	0	0	0
1/14/2020 7:07:30	-288	-591.5	0	-374.5	0	0	0	0	0	0	0
1/14/2020 7:12:30	-298.3333333	-592.3333333	0	-378.6666667	0	0	0	0	0	0	0
1/14/2020 7:17:30	-329	-682	0	-438	0	0	0	0	0	0	0
1/14/2020 7:22:30	-287.6666667	-604.5	0	-347	0	0	0	0	0	0	0
1/14/2020 7:27:30	-281	-554.6666667	0	-340.3333333	0	0	0	0	0	0	0
1/14/2020 7:32:30	-301.3333333	-584.6666667	0	-365.6666667	0	0	0	0	0	0	0
1/14/2020 7:37:30	-335	-652.3333333	0	-378	0	0	0	0	0	0	0
1/14/2020 7:42:30	-302.6666667	-621.3333333	0	-329.6666667	0	0	0	0	0	0	0
1/14/2020 7:47:30	-314	-617.3333333	0	-357.6666667	0	0	0	0	0	0	0
1/14/2020 7:52:30	-307.5	-607	0	-350.3333333	0	0	0	0	0	0	0
1/14/2020 7:57:30	-307	-571.3333333	0	-356	0	0	0	0	0	0	0
1/14/2020 8:02:30	-292	-584	0	-351	0	0	0	0	0	0	0
1/14/2020 8:07:30	-296	-601.6666667	0	-352	0	0	0	0	0	0	0
1/14/2020 8:12:30	-304	-592	0	-357.3333333	0	0	0	0	0	0	0
1/14/2020 8:17:30	-290.6666667	-563.3333333	0	-333.6666667	0	0	0	0	0	0	0
1/14/2020 8:22:30	-312	-621.3333333	0	-359.3333333	0	0	0	0	0	0	0
1/14/2020 8:27:30	-310	-614.3333333	0	-362.3333333	0	0	0	0	0	0	0
1/14/2020 8:32:30	-303	-595.3333333	0	-311	0	0	0	0	0	0	0
1/14/2020 8:37:30	-303.6666667	-595.6666667	0	-333.6666667	0	0	0	0	0	0	0
1/14/2020 8:42:30	-321	-636.6666667	0	-385	0	0	0	0	0	0	0
1/14/2020 8:47:30	-296	-587.6666667	0	-353.3333333	0	0	0	0	0	0	0
1/14/2020 8:52:30	-293	-590.6666667	0	-356	0	0	0	0	0	0	0
1/14/2020 8:57:30	-308.5	-610	0	-356	0	0	0	0	0	0	0
1/14/2020 9:02:30	-294	-576	0	-373	0	0	0	0	0	0	0
1/14/2020 9:07:30	-288	-572.5	0	-342.5	0	0	0	0	0	0	0
1/14/2020 9:12:30	-298.6666667	-583.3333333	0	-334	0	0	0	0	0	0	0
1/14/2020 9:17:30	-324	-630	0	-383.6666667	0	0	0	0	0	0	0

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/14/2020 9:22:30	-294.5	-616.5	0	-367.3333333	0	0	0	0	0	0	0
1/14/2020 9:27:30	-299	-567	0	-339	0	0	0	0	0	0	0
1/14/2020 9:32:30	-312	-614.6666667	0	-322.6666667	0	0	0	0	0	0	0
1/14/2020 9:37:30	-350.3333333	-709.6666667	0	-418.3333333	0	0	0	0	0	0	0
1/14/2020 9:42:30	-342	-690	0	-417.5	0	0	0	0	0	0	0
1/14/2020 9:47:30	-285.6666667	-577.6666667	0	-331	0	0	0	0	0	0	0
1/14/2020 9:52:30	-337.3333333	-658.6666667	0	-373.6666667	0	0	0	0	0	0	0
1/14/2020 9:57:30	-337	-664.3333333	0	-403.6666667	0	0	0	0	0	0	0
1/14/2020 10:02:30	-308.3333333	-591	0	-360	0	0	0	0	0	0	0
1/14/2020 10:07:30	-301.3333333	-586.6666667	0	-360.3333333	0	0	0	0	0	0	0
1/14/2020 10:12:30	-348.5	-684.5	0	-395	0	0	0	0	0	0	0
1/14/2020 10:17:30	-304	-639	0	-351	0	0	0	0	0	0	0
1/14/2020 10:22:30	-322.3333333	-630.6666667	0	-356.6666667	0	3	0	0	0	0	0
1/14/2020 10:27:30	-281	-544.3333333	0	-273.3333333	0	63.66666667	0	0	0	0	0
1/14/2020 10:32:30	-277	-533	0	-266.3333333	0	74	0	0	0	0	0
1/14/2020 10:37:30	-303.5	-612	0	-294.6666667	0	77.66666667	0	0	0	0	0
1/14/2020 10:42:30	-262.6666667	-522.3333333	0	-263.6666667	0	77.66666667	0	0	0	0	0
1/14/2020 10:47:30	-287	-566.3333333	0	-314	0	85.33333333	0	0	0	0	9
1/14/2020 10:52:30	-270.6666667	-534	0	-278	0	83.33333333	0	35	62.33333333	7	11
1/14/2020 10:57:30	-257	-491	73	-251.3333333	37.2	82.33333333	22	59	51.2	42	49.5
1/14/2020 11:02:30	0	0	194	-128	79.66666667	82.33333333	94	97	96.33333333	83	83
1/14/2020 11:07:30	0	0	213	-175.6666667	96	82.33333333	78.66666667	106.6666667	102	89.33333333	92.33333333
1/14/2020 11:12:30	0	0	238.3333333	-169.3333333	77	78.33333333	108.25	113.3333333	110.3333333	99.66666667	100.6666667
1/14/2020 11:17:30	0	0	271.5	-121	77	80	110	0	158.3333333	147	147.6666667
1/14/2020 11:22:30	0	0	243.6666667	-161.3333333	79	82.33333333	110	0	150.3333333	135.3333333	135.6666667
1/14/2020 11:27:30	0	0	326.25	-243	76	84	108	0	179	164.25	165.25
1/14/2020 11:32:30	0	0	441	-281.3333333	76	84.66666667	108	179.3333333	174.6666667	159.3333333	162.3333333
1/14/2020 11:37:30	0	0	436	-273.3333333	76	70.66666667	108	175.6666667	172	156.3333333	162
1/14/2020 11:42:30	0	0	403	-281.3333333	0	74.66666667	0	157.3333333	176	159.25	165.75
1/14/2020 11:47:30	0	0	463	-297.3333333	0	89.33333333	0	157.3333333	236	217	227
1/14/2020 11:52:30	0	0	408	-246.6666667	0	84.33333333	0	157.3333333	185.3333333	169.3333333	172
1/14/2020 11:57:30	0	0	457.6666667	-263.6666667	0	82.33333333	0	157.3333333	201.3333333	175.3333333	180.6666667
1/14/2020 12:02:30	0	0	398	-246.3333333	0	88.33333333	0	157.3333333	176.6666667	162	167.3333333
1/14/2020 12:07:30	0	0	448	-309	0	77.33333333	0	157.3333333	200.6666667	183.3333333	187
1/14/2020 12:12:30	0	0	418.6666667	-261.3333333	0	82	0	157.3333333	187.3333333	170.3333333	179
1/14/2020 12:17:30	0	0	412	-256.6666667	0	89	0	157.3333333	184.3333333	173.6666667	176.3333333
1/14/2020 12:22:30	0	0	424.6666667	-302.6666667	0	88	0	157.3333333	190.6666667	175.6666667	178.3333333
1/14/2020 12:27:30	0	0	455.3333333	-325	0	84.33333333	0	157.3333333	209	190.3333333	193.6666667
1/14/2020 12:32:30	0	0	438	-260.3333333	0	89.66666667	0	157.3333333	191.6666667	175	177
1/14/2020 12:37:30	0	0	427.3333333	-279.3333333	0	80.66666667	0	157.3333333	187	167.3333333	173
1/14/2020 12:42:30	0	0	435.3333333	-287.3333333	0	79.33333333	0	157.3333333	196	182	182.6666667
1/14/2020 12:47:30	0	0	447.3333333	-278	0	88.66666667	0	157.3333333	196	182.3333333	187
1/14/2020 12:52:30	0	0	425	-259.6666667	0	93.33333333	0	157.3333333	189.6666667	176.3333333	175.3333333
1/14/2020 12:57:30	0	0	484.3333333	-321	0	83.66666667	0	157.3333333	206	194.3333333	196
1/14/2020 13:02:30	0	0	505.5	-322	0	100.3333333	0	157.3333333	229	211	217.5
1/14/2020 13:07:30	0	0	449.3333333	-298.6666667	0	79.33333333	0	157.3333333	200.3333333	184.6666667	186.3333333
1/14/2020 13:12:30	0	0	509.3333333	-336.3333333	0	79.33333333	0	157.3333333	217.6666667	198	204
1/14/2020 13:17:30	0	0	500.5	-308.5	0	81	0	157.3333333	226.5	204	211
1/14/2020 13:22:30	0	0	472.3333333	-299	0	94.33333333	0	157.3333333	200.6666667	184.6666667	190.6666667
1/14/2020 13:27:30	0	0	438	-278.6666667	0	92	0	0	200.6666667	187.6666667	189
1/14/2020 13:32:30	0	0	548.5	-341	0	87.33333333	17	0	245.6666667	230	232
1/14/2020 13:37:30	0	0	377.3333333	-222.5	0	79.66666667	137	0	167	149	155.3333333
1/14/2020 13:42:30	0	0	471.3333333	-278	0	90.33333333	137	0	203	186.3333333	191.6666667
1/14/2020 13:47:30	0	0	525	-332.3333333	0	78.33333333	137	0	226	211	212.3333333
1/14/2020 13:52:30	0	0	508.6666667	-328.3333333	0	81.66666667	137	0	232.6666667	211.3333333	209.3333333
1/14/2020 13:57:30	0	0	482.3333333	-282.6666667	0	88.66666667	137	0	214.6666667	195.3333333	199.3333333
1/14/2020 14:02:30	0	0	488.3333333	-301.6666667	0	84.33333333	137	0	215	196	199.3333333
1/14/2020 14:07:30	0	0	471.3333333	-294.6666667	0	84	137	0	207	193.3333333	195.3333333
1/14/2020 14:12:30	0	0	502	-307.3333333	0	83.66666667	137	0	220	202.3333333	205
1/14/2020 14:17:30	0	0	524.6666667	-315.6666667	0	89.33333333	137	0	231.5	214	219
1/14/2020 14:22:30	0	0	518.6666667	-325	0	79.66666667	0	0	224	210.3333333	209
1/14/2020 14:27:30	0	0	543.5	-336	0	75.33333333	-15	0	240.3333333	228	227
1/14/2020 14:32:30	0	0	399	-215.25	0	85.33333333	123	0	165	152.3333333	156.6666667
1/14/2020 14:37:30	0	0	476.3333333	-299.6666667	0	73	123	0	210.3333333	195.3333333	195.6666667
1/14/2020 14:42:30	0	0	517.6666667	-323.6666667	0	71.33333333	123	0	225.3333333	207.6666667	209.3333333
1/14/2020 14:47:30	0	0	547	-366.6666667	0	76.33333333	0	0	245.6666667	220.6666667	226
1/14/2020 14:52:30	0	0	387	-205.25	0	80.66666667	134.6666667	0	166.3333333	153.6666667	155
1/14/2020 14:57:30	0	0	468.3333333	-289.6666667	0	84	134.6666667	0	204.3333333	189.6666667	193
1/14/2020 15:02:30	0	0	516	-322	0	85.33333333	134.6666667	0	224.3333333	209	214.6666667
1/14/2020 15:07:30	0	0	563	-372.3333333	0	91	0	0	244.5	224.3333333	227
1/14/2020 15:12:30	0	0	379	-209.5	0	86	134.6666667	0	164.6666667	151.6666667	154.3333333
1/14/2020 15:17:30	0	0	507.3333333	-329.6666667	0	80	134.6666667	0	217.6666667	209	205
1/14/2020 15:22:30	0	0	515.3333333	-326.3333333	0	80.33333333	134.6666667	0	231.3333333	209.6666667	210.6666667
1/14/2020 15:27:30	0	0	528.3333333	-344.6666667	0	68.33333333	134.6666667	0	229.6666667	216	220
1/14/2020 15:32:30	0	0	508	-317	0	85.33333333	134.6666667	0	222.3333333	208.3333333	212
1/14/2020 15:37:30	0	0	443	-272.3333333	0	96.33333333	134.6666667	0	195.6666667	181.6666667	184
1/14/2020 15:42:30	0	0	518.3333333	-327	0	93	0	0	227	212.3333333	213.3333333
1/14/2020 15:47:30	0	0	462	-229.5	0	91.33333333	72.25	0	188.5	182	180.5
1/14/2020 15:52:30	0	0	454	-270.3333333	0	92.33333333	117.5	0	187.6666667	178.6666667	181.3333333
1/14/2020 15:57:30	0	0	509	-336.6666667	0	83.66666667	117.5	0	221.6666667	203.6666667	205.6666667
1/14/2020 16:02:30	0	0	500.3333333	-315	0	94.33333333	117.5	0	223.6666667	210	211.6666667
1/14/2020 16:07:30	0	0	474.6666667	-300.6666667	0	94.33333333	117.5	0	216.3333333	190.3333333	204.3333333
1/14/2020 16:12:30	0	0	568	-348	0	85.33333333	117.5	0	243.5	226.3333333	230
1/14/2020 16:17:30	0	0	533.6666667	-320.6666667	0	99.33333333	0	0	231.3333333	211	215.3333333
1/14/2020 16:22:30	0	0	400	-190.3333333	0	90.33333333	129.6666667	0	168.6666667	153.3333333	156.6666667
1/14/2020 16:27:30	0	0	369	-190.75	0	85.66666667	128.6666667	0	161	145	148.3333333
1/14/2020 16:32:30	0	0	497.6666667	-300.3333333	0	96.33333333	128.6666667	0	206.6666667	190.3333333	196
1/14/2020 16:37:30	0	0	497	-329	0	87.5	128.6666667	0	223	207.3333333	209.6666667
1/14/2020 16:42:30	0	0	489	-326.6666667	0	95.66666667	128.6666667	0	225	208	209.3333333
1/14/2020 16:47:30	0	0	477.6666667	-289.6666667	0	80.66666667	128.6666667	0	212.6666667	196	200.3333333
1/14/2020 16:52:30	0	0	517	-311.6666667	0	89.33333333	128.6666667	0	229.3333333	207	213.3333333
1/14/2020 16:57:30	0	0	536	-342.6666667	0	80.33333333	128.6666667	0	238	218	220.6666667
1/14/2020 17:02:30	0	0	505.6666667	-296	0	92.66666667	128.6666667	0	224.6666667	207.3333333	211.6666667
1/14/2020 17:07:30	0	0	490	-288.3333333	0	94	128.6666667	0	217.3333333	203	206
1/14/2020 17:12:30	0	0	488.6666667	-323	0	89	128.6666667	0	213.6666667	200.3333333	203.3333333
1/14/2020 17:17:30	0	0	484.3333333	-338.5	0	85.5	128.6666667	0	215.3333333	196	204.6666667
1/14/2020 17:22:30	0	0	491	-304	0	84.66666667	128.6666667	0	218.3333333	204.3333333	207
1/14/2020 17:27:30	0	0	475.6666667	-269.6666667	0	90.33333333	128.6666667	0	204.6666667	181.6666667	186.6666667
1/14/2020 17:32:30	0	0	509.6666667	-303.6666667	0	87	128.6666667	0	215.6666667	204.3333333	205.6666667
1/14/2020 17:37:30	0	0	491.3333333	-296.6666667	0	94.33333333	128.6666667	0	212	200	198.3333333

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/14/2020 17:42:30	0	0	472.6666667	-275.6666667	0	95.33333333	128.6666667	0	204.3333333	190.3333333	192
1/14/2020 17:47:30	0	0	515.6666667	-305	0	95.33333333	128.6666667	0	228	208.6666667	210
1/14/2020 17:52:30	0	0	484	-287	0	86.33333333	128.6666667	0	211.6666667	193	197.3333333
1/14/2020 17:57:30	0	0	448	-258	0	79.33333333	128.6666667	0	194.6666667	179	185.6666667
1/14/2020 18:02:30	0	0	502.6666667	-304	0	79.33333333	128.6666667	0	213.6666667	202.3333333	202.6666667
1/14/2020 18:07:30	0	0	448.3333333	-295.5	0	79.33333333	128.6666667	0	208.6666667	193	194
1/14/2020 18:12:30	0	0	469.3333333	-274	0	79.33333333	128.6666667	0	209.3333333	193	194.3333333
1/14/2020 18:17:30	0	0	476	-286.6666667	0	79.33333333	128.6666667	0	210	192	195.3333333
1/14/2020 18:22:30	0	0	478.5	-280.3333333	0	79.33333333	128.6666667	0	202	186.3333333	188.6666667
1/14/2020 18:27:30	0	0	456	-277.3333333	0	79.33333333	128.6666667	0	200	182.3333333	188
1/14/2020 18:32:30	0	0	466.5	-275.6666667	0	79.33333333	128.6666667	0	210	190.3333333	195.3333333
1/14/2020 18:37:30	0	0	479	-278	0	79.33333333	128.6666667	0	200.3333333	183.6666667	185.6666667
1/14/2020 18:42:30	0	0	508.6666667	-331	0	79.33333333	128.6666667	0	224	204.3333333	206.6666667
1/14/2020 18:47:30	0	0	464	-265	0	79.33333333	128.6666667	0	209.6666667	191.6666667	194.6666667
1/14/2020 18:52:30	0	0	460.6666667	-256.3333333	0	79.33333333	128.6666667	0	204.6666667	188.3333333	188.6666667
1/14/2020 18:57:30	0	0	486.3333333	-295.3333333	0	79.33333333	128.6666667	0	208	197	193.6666667
1/14/2020 19:02:30	0	0	465	-260.3333333	0	79.33333333	128.6666667	0	210.6666667	194.6666667	201
1/14/2020 19:07:30	0	0	477	-312.3333333	0	79.33333333	128.6666667	0	217.3333333	201.6666667	203.3333333
1/14/2020 19:12:30	0	0	439.5	-250.3333333	0	79.33333333	128.6666667	0	196.3333333	181.6666667	186
1/14/2020 19:17:30	0	0	441.3333333	-251	0	79.33333333	128.6666667	0	196.3333333	180	182.6666667
1/14/2020 19:22:30	0	0	464.6666667	-295.3333333	0	79.33333333	128.6666667	0	207.6666667	190	193
1/14/2020 19:27:30	0	0	432.6666667	-239.6666667	0	79.33333333	128.6666667	0	194.3333333	180	175
1/14/2020 19:32:30	0	0	458.6666667	-266	0	79.33333333	128.6666667	0	198.6666667	192.6666667	186.3333333
1/14/2020 19:37:30	0	0	466.6666667	-290.3333333	0	79.33333333	128.6666667	0	210.3333333	192.6666667	195.6666667
1/14/2020 19:42:30	0	0	443.3333333	-265.5	0	79.33333333	128.6666667	0	199	181.6666667	187
1/14/2020 19:47:30	0	0	474.3333333	-269.3333333	0	79.33333333	128.6666667	0	207.3333333	192.6666667	194.6666667
1/14/2020 19:52:30	0	0	462.3333333	-270.3333333	0	79.33333333	128.6666667	0	207.3333333	189.6666667	194.6666667
1/14/2020 19:57:30	0	0	463	-285.6666667	0	79.33333333	128.6666667	0	203.3333333	189	195.6666667
1/14/2020 20:02:30	0	0	465.3333333	-271.3333333	0	79.33333333	128.6666667	0	202.3333333	185.6666667	193
1/14/2020 20:07:30	0	0	499.3333333	-297	0	79.33333333	128.6666667	0	215.3333333	202.3333333	204
1/14/2020 20:12:30	0	0	500	-312.3333333	0	79.33333333	128.6666667	0	221.3333333	203	206.6666667
1/14/2020 20:17:30	0	0	426	-229.3333333	0	79.33333333	128.6666667	0	188.6666667	174.6666667	178
1/14/2020 20:22:30	0	0	433	-232.6666667	0	79.33333333	128.6666667	0	184.3333333	166.6666667	171.3333333
1/14/2020 20:27:30	0	0	484.3333333	-297.3333333	0	79.33333333	128.6666667	0	215	199.6666667	202
1/14/2020 20:32:30	0	0	514	-276.3333333	0	79.33333333	128.6666667	0	228.3333333	209	213
1/14/2020 20:37:30	0	0	451.3333333	-266.3333333	0	79.33333333	128.6666667	0	196.3333333	177	181.6666667
1/14/2020 20:42:30	0	0	446.6666667	-243	0	79.33333333	128.6666667	0	194.3333333	184	187.3333333
1/14/2020 20:47:30	0	0	466.6666667	-266.6666667	0	79.33333333	128.6666667	0	204	185.3333333	190.6666667
1/14/2020 20:52:30	0	0	485	-323	0	79.33333333	128.6666667	0	211.6666667	203	206.5
1/14/2020 20:57:30	0	0	418	-256	0	79.33333333	128.6666667	0	186	173	176.3333333
1/14/2020 21:02:30	0	0	493.3333333	-291.6666667	0	79.33333333	128.6666667	0	210.6666667	190.3333333	194
1/14/2020 21:07:30	0	0	490	-301.3333333	0	79.33333333	128.6666667	0	217.3333333	198.6666667	203
1/14/2020 21:12:30	0	0	435.3333333	-263	0	79.33333333	128.6666667	0	198.6666667	181.6666667	186.5
1/14/2020 21:17:30	0	0	454	-260.3333333	0	79.33333333	128.6666667	0	195.3333333	182	184.6666667
1/14/2020 21:22:30	0	0	471.5	-281.5	0	79.33333333	128.6666667	0	212	193	195.3333333
1/14/2020 21:27:30	0	0	452	-235	0	79.33333333	128.6666667	0	201	184	186.3333333
1/14/2020 21:32:30	0	0	439.6666667	-263.6666667	0	79.33333333	128.6666667	0	196.3333333	176.6666667	183.3333333
1/14/2020 21:37:30	0	0	424	-259.6666667	0	79.33333333	128.6666667	0	195.6666667	180.5	188
1/14/2020 21:42:30	0	0	418.3333333	-233	0	79.33333333	128.6666667	0	192.3333333	172.3333333	176
1/14/2020 21:47:30	0	0	423.6666667	-268.6666667	0	79.33333333	128.6666667	0	197.3333333	179.6666667	184.3333333
1/14/2020 21:52:30	0	0	403.6666667	-217.3333333	0	79.33333333	128.6666667	0	185	172	166
1/14/2020 21:57:30	0	0	444.6666667	-255	0	79.33333333	128.6666667	0	201.6666667	183.3333333	186
1/14/2020 22:02:30	0	0	430.3333333	-251	0	79.33333333	128.6666667	0	192.6666667	176.3333333	180
1/14/2020 22:07:30	0	0	444.3333333	-247	0	79.33333333	128.6666667	0	194.3333333	182	179.6666667
1/14/2020 22:12:30	0	0	428.6666667	-289.3333333	0	79.33333333	128.6666667	0	195.3333333	177.6666667	179
1/14/2020 22:17:30	0	0	423.3333333	-279	0	79.33333333	128.6666667	0	201.6666667	186	185.6666667
1/14/2020 22:22:30	0	0	415.5	-234.6666667	0	79.33333333	128.6666667	0	195.6666667	181	184.3333333
1/14/2020 22:27:30	0	0	409.6666667	-242	0	79.33333333	128.6666667	0	182.3333333	168.3333333	169.6666667
1/14/2020 22:32:30	0	0	431.6666667	-278	0	79.33333333	128.6666667	0	192.6666667	179.3333333	178.6666667
1/14/2020 22:37:30	0	0	516	-336.5	0	79.33333333	128.6666667	0	226	211.5	213.3333333
1/14/2020 22:42:30	0	0	419.3333333	-251.3333333	0	79.33333333	128.6666667	0	184.6666667	171.6666667	174.6666667
1/14/2020 22:47:30	0	0	407	-246.3333333	0	79.33333333	128.6666667	0	183.3333333	166.3333333	169
1/14/2020 22:52:30	0	0	414.6666667	-266.5	0	79.33333333	128.6666667	0	190.6666667	173.3333333	178.3333333
1/14/2020 22:57:30	0	0	460	-262.6666667	0	79.33333333	128.6666667	0	204.6666667	187.3333333	186.3333333
1/14/2020 23:02:30	0	0	425.3333333	-278	0	79.33333333	128.6666667	0	186.6666667	177	177
1/14/2020 23:07:30	0	0	387.6666667	-222	0	79.33333333	128.6666667	0	175.6666667	156.6666667	160
1/14/2020 23:12:30	0	0	454	-309	0	79.33333333	128.6666667	0	205.6666667	190.5	192.6666667
1/14/2020 23:17:30	0	0	408.6666667	-246.3333333	0	79.33333333	128.6666667	0	180.3333333	170.6666667	169.6666667
1/14/2020 23:22:30	0	0	388.3333333	-248.25	0	79.33333333	128.6666667	0	176.3333333	160	163.6666667
1/14/2020 23:27:30	0	0	428.5	-300	0	79.33333333	128.6666667	0	204	185.6666667	189.3333333
1/14/2020 23:32:30	0	0	406.5	-259	0	79.33333333	128.6666667	0	189	173	176
1/14/2020 23:37:30	0	0	387.3333333	-229	0	79.33333333	128.6666667	0	170.6666667	158.6666667	163.3333333
1/14/2020 23:42:30	0	0	419	-255.6666667	0	79.33333333	128.6666667	0	186	170	171.3333333
1/14/2020 23:47:30	0	0	381	-254	0	79.33333333	128.6666667	0	176.6666667	160.6666667	160.3333333
1/14/2020 23:52:30	0	0	466	-294.6666667	0	79.33333333	128.6666667	0	206.6666667	189.3333333	194.6666667
1/14/2020 23:57:30	0	0	426.5	-250.3333333	0	79.33333333	128.6666667	0	199	180	182.5
1/15/2020 0:02:30	0	0	375.3333333	-253	0	0	0	0	177	160.3333333	164
1/15/2020 0:07:30	0	0	395.3333333	-234	0	0	0	0	170.3333333	157.6666667	156
1/15/2020 0:12:30	0	0	370	-216.6666667	0	0	0	0	171.6666667	158.6666667	161.6666667
1/15/2020 0:17:30	0	0	416.3333333	-283.3333333	0	0	0	0	187	171.6666667	173.6666667
1/15/2020 0:22:30	0	0	387	-255	0	0	0	0	177	161.5	165
1/15/2020 0:27:30	0	0	387	-229	0	0	0	0	171.3333333	156.6666667	160
1/15/2020 0:32:30	0	0	382.3333333	-226.6666667	0	0	0	0	173	154.6666667	155.6666667
1/15/2020 0:37:30	0	0	410.6666667	-242.6666667	0	0	0	0	189	170.6666667	170.3333333
1/15/2020 0:42:30	0	0	390.3333333	-244	0	0	0	0	175	154.6666667	159
1/15/2020 0:47:30	0	0	413.5	-244	0	0	0	0	186.3333333	169.3333333	175
1/15/2020 0:52:30	0	0	412.6666667	-244.3333333	0	0	0	0	180.3333333	162.3333333	166.6666667
1/15/2020 0:57:30	0	0	420	-264	0	0	0	0	191.6666667	173	174.6666667
1/15/2020 1:02:30	0	0	415	-268	0	0	0	0	188.6666667	173.6666667	176
1/15/2020 1:07:30	0	0	356.3333333	-219.3333333	0	0	0	0	163	145.6666667	150.3333333
1/15/2020 1:12:30	0	0	387	-255	0	0	0	0	173.6666667	158	159.6666667
1/15/2020 1:17:30	0	0	428.6666667	-285.3333333	0	0	0	0	192	174.3333333	176.6666667
1/15/2020 1:22:30	0	0	372.6666667	-216	0	0	0	0	161.6666667	147.3333333	149
1/15/2020 1:27:30	0	0	393.3333333	-249.3333333	0	0	0	0	181.3333333	161.6666667	167.3333333
1/15/2020 1:32:30	0	0	391	-257.5	0	0	0	0	178	164.3333333	168
1/15/2020 1:37:30	0	0	361	-220.3333333	0	0	0	0	163.6666667	144.3333333	152.3333333
1/15/2020 1:42:30	0	0	393.6666667	-236.6666667	0	0	0	0	171	157.3333333	161.3333333
1/15/2020 1:47:30	0	0	424	-274.6666667	0	0	0	0	187	171	175.3333333
1/15/2020 1:52:30	0	0	475.6666667	-310	0	0	0	0	212.6666667	197	198
1/15/2020 1:57:30	0	0	391.6666667	-243.6666667	0	0	0	0	181.3333333	164.3333333	165.6666667

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/15/2020 2:02:30	0	0	386.6666667	-254.3333333	0	0	0	0	179.6666667	163.5	167
1/15/2020 2:07:30	0	0	394.3333333	-258.6666667	0	0	0	0	177.3333333	163.6666667	164.6666667
1/15/2020 2:12:30	0	0	383.6666667	-239	0	0	0	0	176.3333333	161	163.6666667
1/15/2020 2:17:30	0	0	386	-230	0	0	0	0	173.6666667	159.3333333	164
1/15/2020 2:22:30	0	0	383.6666667	-239.6666667	0	0	0	0	165.3333333	151	155.3333333
1/15/2020 2:27:30	0	0	430.3333333	-298.3333333	0	0	0	0	192.3333333	177	177.3333333
1/15/2020 2:32:30	0	0	398.6666667	-249	0	3	0	0	182.3333333	166.6666667	170.6666667
1/15/2020 2:37:30	0	0	384.6666667	-234	0	79	0	0	177	162.3333333	167
1/15/2020 2:42:30	0	0	403.3333333	-261.3333333	0	83.33333333	0	0	177	161	165.3333333
1/15/2020 2:47:30	0	0	407.6666667	-244.3333333	0	81	0	0	177	163	167.3333333
1/15/2020 2:52:30	0	0	426	-258.3333333	0	78.33333333	0	0	192	177.6666667	180
1/15/2020 2:57:30	0	0	390	-233	0	62.33333333	0	0	172.6666667	157.6666667	158.3333333
1/15/2020 3:02:30	0	0	392.3333333	-234.6666667	0	73.66666667	0	0	175.3333333	160.6666667	162.3333333
1/15/2020 3:07:30	0	0	418.6666667	-247.3333333	0	77.66666667	0	0	185	175	178.3333333
1/15/2020 3:12:30	0	0	443.3333333	-302.3333333	0	72.33333333	0	0	195	180.3333333	180.3333333
1/15/2020 3:17:30	0	0	393.3333333	-216	0	73	0	0	174.3333333	157.6666667	164
1/15/2020 3:22:30	0	0	388.3333333	-217	0	78.66666667	0	0	179	159.6666667	159.6666667
1/15/2020 3:27:30	0	0	414	-262	0	71.33333333	0	0	188	169.6666667	170
1/15/2020 3:32:30	0	0	412	-221	0	80.66666667	0	0	185.6666667	170.5	171.3333333
1/15/2020 3:37:30	0	0	378.6666667	-224	0	80	0	0	170.6666667	157	161
1/15/2020 3:42:30	0	0	425.5	-294	0	65.66666667	0	0	193.3333333	177.6666667	179.3333333
1/15/2020 3:47:30	0	0	393	-231	0	73.33333333	0	0	174	162	165
1/15/2020 3:52:30	0	0	403.6666667	-231	0	78.33333333	0	0	166.6666667	151.3333333	154.6666667
1/15/2020 3:57:30	0	0	431	-266.6666667	0	72.33333333	0	0	195.5	185	181
1/15/2020 4:02:30	0	0	384.6666667	-250.3333333	0	78.33333333	0	0	171.6666667	155.6666667	159.6666667
1/15/2020 4:07:30	0	0	423	-258	0	78.33333333	0	0	182	165.6666667	177.6666667
1/15/2020 4:12:30	0	0	408.3333333	-232.6666667	0	72.5	0	0	185	168	172.3333333
1/15/2020 4:17:30	0	0	442.6666667	-283	0	78	0	0	197	179.6666667	183
1/15/2020 4:22:30	0	0	402.3333333	-264.3333333	0	79.33333333	0	0	189.6666667	174.3333333	176.6666667
1/15/2020 4:27:30	0	0	412.3333333	-244.6666667	0	71.33333333	0	0	183	166.3333333	167
1/15/2020 4:32:30	0	0	406.6666667	-258	0	78.33333333	0	0	179.3333333	164.6666667	167
1/15/2020 4:37:30	0	0	382	-251.3333333	0	82	0	0	169.3333333	155	157.6666667
1/15/2020 4:42:30	0	0	402	-240.3333333	0	66	0	0	182.6666667	165	167.3333333
1/15/2020 4:47:30	0	0	409.6666667	-232.6666667	0	79	0	0	176.3333333	167.3333333	167
1/15/2020 4:52:30	0	0	416	-256.3333333	0	78.66666667	0	0	180	164.3333333	170
1/15/2020 4:57:30	0	0	416	-271.5	0	73.33333333	0	0	189.3333333	174	172.6666667
1/15/2020 5:02:30	0	0	372.3333333	-219	0	90	0	0	167	154.3333333	156.3333333
1/15/2020 5:07:30	0	0	432.6666667	-275	0	76	0	0	187.6666667	171.3333333	173.3333333
1/15/2020 5:12:30	0	0	440.5	-259.6666667	0	78.33333333	0	0	196.6666667	182.6666667	184.3333333
1/15/2020 5:17:30	0	0	381.6666667	-245.3333333	0	79	0	0	174.3333333	162.3333333	162.3333333
1/15/2020 5:22:30	0	0	373.3333333	-261	0	72	0	0	167.6666667	151.3333333	157.6666667
1/15/2020 5:27:30	0	0	395.6666667	-257.3333333	0	69.33333333	0	0	184.3333333	169.3333333	173
1/15/2020 5:32:30	0	0	421	-269.6666667	0	83.66666667	0	0	185.6666667	173.6666667	177.3333333
1/15/2020 5:37:30	0	0	381	-237.3333333	0	79	0	0	171.6666667	155.3333333	157.6666667
1/15/2020 5:42:30	0	0	436	-278.6666667	0	78.66666667	0	0	192	176	178.3333333
1/15/2020 5:47:30	0	0	406.6666667	-273	0	79.33333333	0	0	183.6666667	171.6666667	172.6666667
1/15/2020 5:52:30	0	0	424.6666667	-251.5	0	74.33333333	0	0	186.3333333	172	175.3333333
1/15/2020 5:57:30	0	0	439.6666667	-245.3333333	0	76.66666667	0	0	191	176.3333333	178
1/15/2020 6:02:30	0	0	389.6666667	-235.6666667	0	77.33333333	0	0	178	161	166.3333333
1/15/2020 6:07:30	0	0	403.3333333	-244.3333333	0	78.33333333	0	0	177	164.3333333	166.3333333
1/15/2020 6:12:30	0	0	395.3333333	-244.6666667	0	81.66666667	0	0	179	165.6666667	166
1/15/2020 6:17:30	0	0	392.3333333	-244.6666667	0	80.33333333	0	0	174.6666667	159.3333333	161.6666667
1/15/2020 6:22:30	0	0	433.3333333	-276.6666667	0	83.5	0	0	190.6666667	175	179.3333333
1/15/2020 6:27:30	0	0	400.3333333	-242	0	67.66666667	0	0	173.3333333	160	160.6666667
1/15/2020 6:32:30	0	0	425	-253.3333333	0	76.33333333	0	0	182	173.3333333	175.3333333
1/15/2020 6:37:30	0	0	436	-278	0	80.66666667	0	0	192.6666667	178	181.6666667
1/15/2020 6:42:30	0	0	394.6666667	-214.6666667	0	92.66666667	0	0	178	162	171
1/15/2020 6:47:30	0	0	433	-262.6666667	0	85.33333333	0	0	189.6666667	172	173.3333333
1/15/2020 6:52:30	0	0	408.3333333	-252.6666667	0	72.66666667	0	0	178.3333333	173	170.6666667
1/15/2020 6:57:30	0	0	421.5	-253.6666667	0	78.33333333	0	0	192.6666667	175.3333333	182
1/15/2020 7:02:30	0	0	379	-214	0	80.66666667	0	0	159	145.3333333	146.6666667
1/15/2020 7:07:30	0	0	405.3333333	-258.3333333	0	81.66666667	0	0	177	162.6666667	166.3333333
1/15/2020 7:12:30	0	0	427	-251.6666667	0	82.66666667	0	0	191	174.6666667	179.3333333
1/15/2020 7:17:30	0	0	404.3333333	-240	0	87.5	0	0	181.6666667	170.3333333	174.3333333
1/15/2020 7:22:30	0	0	419.3333333	-287.5	0	77.33333333	0	0	194.6666667	176.3333333	184.5
1/15/2020 7:27:30	0	0	406	-251	0	89.33333333	0	0	178.3333333	164	165.3333333
1/15/2020 7:32:30	0	0	448.6666667	-266	0	78	0	0	198	186.3333333	181.6666667
1/15/2020 7:37:30	0	0	459.6666667	-253.3333333	0	79	0	0	201.6666667	184.6666667	186.6666667
1/15/2020 7:42:30	0	0	363.3333333	-252.5	0	70.66666667	0	0	169.3333333	153.6666667	161.5
1/15/2020 7:47:30	0	0	364.3333333	-208	0	90.5	0	0	161.6666667	147	153
1/15/2020 7:52:30	0	0	427.3333333	-276	0	80	0	0	196.3333333	177.6666667	181
1/15/2020 7:57:30	0	0	427.6666667	-266.6666667	0	78.33333333	0	0	188.3333333	177	178.5
1/15/2020 8:02:30	0	0	410.6666667	-248	0	78.33333333	0	0	182.3333333	165	169
1/15/2020 8:07:30	0	0	411.3333333	-273.6666667	0	89.5	0	0	176.3333333	161.6666667	165
1/15/2020 8:12:30	0	0	411	-242	0	83.66666667	0	0	179.6666667	169.6666667	171.3333333
1/15/2020 8:17:30	0	0	383	-230.3333333	0	88	0	0	173	159.3333333	161.6666667
1/15/2020 8:22:30	0	0	407.6666667	-243.6666667	0	92	0	0	180.6666667	165	168
1/15/2020 8:27:30	0	0	403.3333333	-237.6666667	0	81	0	0	183.3333333	170	167.6666667
1/15/2020 8:32:30	0	0	436.3333333	-297.3333333	0	75	0	0	188	169.6666667	169.6666667
1/15/2020 8:37:30	0	0	457	-254	0	79.66666667	0	0	196.3333333	183.3333333	185.6666667
1/15/2020 8:42:30	0	0	429	-254	0	85	0	0	193	179.5	181.3333333
1/15/2020 8:47:30	0	0	381.3333333	-233	0	86	0	0	158	152.6666667	153.6666667
1/15/2020 8:52:30	0	0	379.6666667	-260.3333333	0	80.5	0	0	176.6666667	162.3333333	165.3333333
1/15/2020 8:57:30	0	0	413.6666667	-265.3333333	0	68	0	0	179.6666667	166.3333333	170
1/15/2020 9:02:30	0	0	440.5	-284	0	79.33333333	0	0	204	186	188
1/15/2020 9:07:30	0	0	414	-251	0	86	0	0	181	170.5	171
1/15/2020 9:12:30	0	0	409	-248	0	84	0	0	180.3333333	165.6666667	169.3333333
1/15/2020 9:17:30	0	0	438.3333333	-300.6666667	0	87.66666667	0	0	196	178.6666667	181
1/15/2020 9:22:30	0	0	375.6666667	-224.6666667	0	77.33333333	0	28	169	155.6666667	159
1/15/2020 9:27:30	0	0	390	-234	0	77.33333333	0	132.3333333	145.5	130.25	133
1/15/2020 9:32:30	0	0	472.6666667	-303	0	74	0	0	199	187.3333333	191.3333333
1/15/2020 9:37:30	0	0	421	-261.6666667	0	78	8	0	187.3333333	182	178.6666667
1/15/2020 9:42:30	0	0	352.3333333	-171.5	0	80.33333333	162.5	146	147	126.6666667	0
1/15/2020 9:47:30	0	0	449.5	-233.3333333	0	82	162.5	200.6666667	191.3333333	184	0
1/15/2020 9:52:30	0	0	388.3333333	-248.6666667	0	69.66666667	0	230	228.6666667	207	0
1/15/2020 9:57:30	0	0	324.3333333	-123.6666667	0	79.33333333	147.3333333	204.6666667	205.6666667	191.6666667	206
1/15/2020 10:02:30	0	0	283	-100	0	89.5	166.3333333	235.6666667	228.3333333	217	218.3333333
1/15/2020 10:07:30	0	0	330.6666667	-110.3333333	0	80	165.6666667	236	232	217	216.3333333
1/15/2020 10:12:30	0	0	313.3333333	-115.6666667	0	79.33333333	166	234.6666667	231.6666667	217	218.3333333
1/15/2020 10:17:30	0	0	349.6666667	-198.3333333	0	81.33333333	140	197	192.3333333	181.6666667	180.6666667

Date	R1-U kW	R1-M kW	R2 kW	R3 kW	Generator-Bldg-"I" kW Output	Generator-Bldg-"E" kW Output	Generator-Bldg-"A" kW Output	Generator-Trailer-A1 kW Output	Generator-Trailer-A2 kW Output	Generator-Trailer-B1 kW Output	Generator-Trailer-B2 kW Output
1/15/2020 10:22:30	0	0	435	-268.6666667	0	81.33333333	140	197	193	173.3333333	180.3333333
1/15/2020 10:27:30	0	0	443.6666667	-305	0	77.33333333	140	197	192.3333333	177	182.3333333
1/15/2020 10:32:30	0	0	414	-272.6666667	0	78.33333333	140	197	183	167.6666667	168.6666667
1/15/2020 10:37:30	-139.5	-119	394	-233.3333333	48.4	64.33333333	49.4	0	174	160	163.6666667
1/15/2020 10:42:30	-135	-268	0	-117	82	70.33333333	82.66666667	0	0	0	0
1/15/2020 10:47:30	-141	-245.6666667	0	-130.6666667	80.33333333	77.66666667	89.66666667	0	0	0	0
1/15/2020 10:52:30	-141.3333333	-287.6666667	0	-173.5	80.33333333	83.33333333	95.33333333	0	0	0	0
1/15/2020 10:57:30	-149	-289.6666667	0	-151.3333333	80.33333333	82.33333333	100.3333333	0	0	0	0
1/15/2020 11:02:30	-173.6666667	-327.3333333	0	-144.3333333	80	91	99	0	0	0	0
1/15/2020 11:07:30	-173.6666667	-341.3333333	0	-196	78	86.33333333	103.3333333	0	0	0	0
1/15/2020 11:12:30	-232	-455	0	-236.6666667	78	80	0	0	0	0	0
1/15/2020 11:17:30	-248.3333333	-504.6666667	0	-257.6666667	78	71	0	0	0	0	0
1/15/2020 11:22:30	-276	-522	0	-301	78	75.33333333	0	0	0	0	0
1/15/2020 11:27:30	-278.5	-556.6666667	0	-307.3333333	78	83	0	0	0	0	0

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/13/2020 0:02:30	19800	19600	18800	19500	0	0	0	0	0	0	0
1/13/2020 0:07:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 0:12:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 0:17:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 0:22:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:27:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:32:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:37:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:42:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:47:30	19800	19600	18800	19450	0	0	0	0	0	0	0
1/13/2020 0:52:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 0:57:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:02:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:07:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:12:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:17:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:22:30	19800	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:27:30	19850	19600	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:32:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:37:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:42:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:47:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:52:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 1:57:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:02:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:07:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:12:30	19866.66667	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:17:30	19866.66667	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:22:30	19866.66667	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:27:30	19850	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:32:30	19850	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:37:30	19850	19666.66667	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:42:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:47:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:52:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 2:57:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:02:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:07:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:12:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:17:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:22:30	19850	19650	18800	19466.66667	0	0	0	0	0	0	0
1/13/2020 3:27:30	19850	19650	18800	19550	0	0	0	0	0	0	0
1/13/2020 3:32:30	19850	19650	18800	19550	0	0	0	0	0	0	0
1/13/2020 3:37:30	19850	19650	18800	19566.66667	0	0	0	0	0	0	0
1/13/2020 3:42:30	19850	19650	18800	19566.66667	0	0	0	0	0	0	0
1/13/2020 3:47:30	19850	19650	18800	19566.66667	0	0	0	0	0	0	0
1/13/2020 3:52:30	19950	19766.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 3:57:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:02:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:07:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:12:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:17:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:22:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:27:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:32:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:37:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:42:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:47:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:52:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 4:57:30	19966.66667	19750	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:02:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:07:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:12:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:17:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:22:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:27:30	20066.66667	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:32:30	20066.66667	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:37:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:42:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:47:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:52:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 5:57:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:02:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:07:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:12:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:17:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:22:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:27:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:32:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:37:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:42:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:47:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:52:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 6:57:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:02:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:07:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:12:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:17:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:22:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:27:30	20066.66667	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:32:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:37:30	20050	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:42:30	20066.66667	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:47:30	20066.66667	19850	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:52:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 7:57:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:02:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:07:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:12:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:17:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:22:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:27:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/13/2020 8:32:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:37:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:42:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:47:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:52:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 8:57:30	20050	19866.66667	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 9:02:30	20050	19866.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:07:30	20050	19866.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:12:30	19966.66667	19750	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:17:30	19950	19750	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:22:30	19966.66667	19750	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:27:30	19950	19750	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:32:30	19966.66667	19750	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:37:30	19966.66667	19766.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:42:30	19966.66667	19766.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:47:30	19966.66667	19766.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 9:52:30	19966.66667	19700	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 9:57:30	19966.66667	19700	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 10:02:30	19966.66667	19700	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:07:30	19966.66667	19700	18866.66667	19566.66667	0	0	0	0	0	0	0
1/13/2020 10:12:30	19866.66667	19700	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:17:30	19866.66667	19666.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:22:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:27:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:32:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:37:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:42:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:47:30	19866.66667	19650	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:52:30	19750	19566.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 10:57:30	19766.66667	19566.66667	18866.66667	19550	0	0	0	0	0	0	0
1/13/2020 11:02:30	19766.66667	19566.66667	18866.66667	19450	0	0	0	0	0	0	0
1/13/2020 11:07:30	19600	19566.66667	18850	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:12:30	19666.66667	19450	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:17:30	19700	19466.66667	18900	19500	0	0	0	0	0	0	0
1/13/2020 11:22:30	19700	19466.66667	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:27:30	19766.66667	19600	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:32:30	19750	19550	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:37:30	19766.66667	19550	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:42:30	19766.66667	19566.66667	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:47:30	19766.66667	19566.66667	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:52:30	19766.66667	19566.66667	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 11:57:30	19766.66667	19566.66667	18900	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:02:30	19600	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:07:30	19666.66667	19566.66667	18866.66667	19450	0	0	0	0	0	0	0
1/13/2020 12:12:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:17:30	19650	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:22:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:27:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:32:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:37:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:42:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:47:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:52:30	19666.66667	19566.66667	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 12:57:30	19800	19600	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:02:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:07:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:12:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:17:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:22:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:27:30	19750	19550	18866.66667	19466.66667	0	0	0	0	0	0	0
1/13/2020 13:32:30	19750	19550	18866.66667	19466.66667	0	114	0	0	0	0	0
1/13/2020 13:37:30	19750	19550	18866.66667	19466.66667	0	114	0	0	0	0	0
1/13/2020 13:42:30	19750	19550	18866.66667	19466.66667	0	479	0	0	0	0	0
1/13/2020 13:47:30	19750	19550	18866.66667	19466.66667	0	343	0	0	0	0	0
1/13/2020 13:52:30	19750	19550	18866.66667	19466.66667	0	343	0	0	0	0	0
1/13/2020 13:57:30	19750	19550	18866.66667	19466.66667	0	343	0	0	0	0	0
1/13/2020 14:02:30	19750	19550	18866.66667	19466.66667	0	343	0	0	0	0	0
1/13/2020 14:07:30	19766.66667	19550	18866.66667	19466.66667	0	343	42	0	0	0	0
1/13/2020 14:12:30	19766.66667	19550	18866.66667	19466.66667	0	343	207.3333333	0	0	0	0
1/13/2020 14:17:30	19766.66667	19550	18866.66667	19466.66667	0	343	207.6666667	0	0	0	0
1/13/2020 14:22:30	19766.66667	19566.66667	18866.66667	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:27:30	19766.66667	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:32:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:37:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:42:30	19750	19566.66667	18866.66667	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:47:30	19750	19566.66667	18866.66667	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:52:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 14:57:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:02:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:07:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:12:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:17:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:22:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:27:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:32:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:37:30	19750	19566.66667	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:42:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:47:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:52:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 15:57:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:02:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:07:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:12:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:17:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:22:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:27:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:32:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:37:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:42:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:47:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:52:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 16:57:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/13/2020 17:02:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:07:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:12:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:17:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:22:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:27:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:32:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:37:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:42:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:47:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:52:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 17:57:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 18:02:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 18:07:30	19750	19550	18850	19466.66667	0	343	208	0	0	0	0
1/13/2020 18:12:30	19750	19550	18850	19466.66667	351.5	343	208	0	0	0	0
1/13/2020 18:17:30	19750	19550	18850	19466.66667	351.5	343	208	0	0	0	0
1/13/2020 18:22:30	19750	19550	18850	19466.66667	351.5	343	208	0	0	0	0
1/13/2020 18:27:30	19750	19550	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:32:30	19750	19550	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:37:30	19850	19650	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:42:30	19850	19650	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:47:30	19866.66667	19650	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:52:30	19866.66667	19666.66667	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 18:57:30	19850	19666.66667	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 19:02:30	19850	19666.66667	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 19:07:30	19850	19666.66667	18850	19466.66667	380	343	208	0	0	0	0
1/13/2020 19:12:30	19850	19666.66667	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 19:17:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 19:22:30	19850	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 19:27:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 19:32:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 19:37:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 19:42:30	19866.66667	19650	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 19:47:30	19866.66667	19666.66667	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 19:52:30	19866.66667	19666.66667	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 19:57:30	19866.66667	19666.66667	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:02:30	19866.66667	19666.66667	18850	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:07:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 20:12:30	19866.66667	19666.66667	19200	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:17:30	19866.66667	19650	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:22:30	19866.66667	19666.66667	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:27:30	19866.66667	19650	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:32:30	19866.66667	19666.66667	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:37:30	19866.66667	19666.66667	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:42:30	19866.66667	19666.66667	18866.66667	19566.66667	380	343	208	0	0	0	0
1/13/2020 20:47:30	19866.66667	19666.66667	18850	19550	380	343	208	0	0	0	0
1/13/2020 20:52:30	19866.66667	19666.66667	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 20:57:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:02:30	19850	19650	18900	19550	380	343	208	0	0	0	0
1/13/2020 21:07:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:12:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:17:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:22:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:27:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:32:30	19866.66667	19650	18850	19550	380	343	208	0	0	0	0
1/13/2020 21:37:30	19866.66667	19650	18850	19550	380	343	208	0	0	0	0
1/13/2020 21:42:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:47:30	19866.66667	19650	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:52:30	19766.66667	19566.66667	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 21:57:30	19766.66667	19566.66667	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 22:02:30	19766.66667	19566.66667	18866.66667	19550	380	343	208	0	0	0	0
1/13/2020 22:07:30	19766.66667	19566.66667	18866.66667	19466.66667	380	343	208	0	0	0	0
1/13/2020 22:12:30	19700	19466.66667	18900	19466.66667	380	343	208	0	0	0	0
1/13/2020 22:17:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:22:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:27:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:32:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:37:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:42:30	19950	19750	18900	19550	380	343	208	0	0	0	0
1/13/2020 22:47:30	19950	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 22:52:30	19950	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 22:57:30	19950	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:02:30	19950	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:07:30	19950	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:12:30	19966.66667	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:17:30	19966.66667	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:22:30	19966.66667	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:27:30	19966.66667	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:32:30	19950	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:37:30	19950	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:42:30	19950	19750	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:47:30	19966.66667	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:52:30	19966.66667	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/13/2020 23:57:30	19966.66667	19766.66667	18900	19566.66667	380	343	208	0	0	0	0
1/14/2020 0:02:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:07:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:12:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:17:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:22:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:27:30	19900	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:32:30	19966.66667	19750	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:37:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:42:30	20000	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:47:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:52:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 0:57:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:02:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:07:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:12:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:17:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:22:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:27:30	19900	19700	18900	19600	0	0	0	0	0	0	0

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/14/2020 1:32:30	19900	19700	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:37:30	19900	19700	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:42:30	19900	19750	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:47:30	19950	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:52:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 1:57:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:02:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:07:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:12:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:17:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:22:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:27:30	19966.66667	19766.66667	18900	19600	0	0	0	0	0	0	0
1/14/2020 2:32:30	19966.66667	19766.66667	18900	19650	0	0	0	0	0	0	0
1/14/2020 2:37:30	19966.66667	19766.66667	18900	19666.66667	0	0	0	0	0	0	0
1/14/2020 2:42:30	19966.66667	19766.66667	18900	19666.66667	0	0	0	0	0	0	0
1/14/2020 2:47:30	19966.66667	19766.66667	18900	19666.66667	0	0	0	0	0	0	0
1/14/2020 2:52:30	19966.66667	19866.66667	18900	19666.66667	0	0	0	0	0	0	0
1/14/2020 2:57:30	19900	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:02:30	19850	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:07:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:12:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:17:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:22:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:27:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:32:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:37:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:42:30	19866.66667	19850	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:47:30	19866.66667	19766.66667	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:52:30	19966.66667	19750	18900	19650	0	0	0	0	0	0	0
1/14/2020 3:57:30	19900	19700	18900	19650	0	0	0	0	0	0	0
1/14/2020 4:02:30	19900	19700	18900	19650	0	0	0	0	0	0	0
1/14/2020 4:07:30	19900	19700	18900	19550	0	0	0	0	0	0	0
1/14/2020 4:12:30	19900	19700	18900	19550	0	0	0	0	0	0	0
1/14/2020 4:17:30	19900	19700	18900	19550	0	0	0	0	0	0	0
1/14/2020 4:22:30	19900	19700	18900	19550	0	0	0	0	0	0	0
1/14/2020 4:27:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:32:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:37:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:42:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:47:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:52:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 4:57:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:02:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:07:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:12:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:17:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:22:30	19900	19700	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:27:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:32:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:37:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:42:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:47:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:52:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 5:57:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:02:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:07:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:12:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:17:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:22:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:27:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:32:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:37:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:42:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:47:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:52:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 6:57:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:02:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:07:30	19966.66667	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:12:30	19950	19750	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:17:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:22:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:27:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:32:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:37:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:42:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:47:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:52:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 7:57:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:02:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:07:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:12:30	19966.66667	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:17:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:22:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:27:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:32:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:37:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:42:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:47:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:52:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 8:57:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:02:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:07:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:12:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:17:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:22:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:27:30	19950	19766.66667	18900	19550	0	0	0	0	0	0	0
1/14/2020 9:32:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:37:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:42:30	19950	19766.66667	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:47:30	19950	19650	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:52:30	19950	19650	18900	19566.66667	0	0	0	0	0	0	0
1/14/2020 9:57:30	19950	19650	18900	19566.66667	0	0	0	0	0	0	0

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/14/2020 10:02:30	19850	19666.66667	18900	19550	0	0	0	0	0	0	0
1/14/2020 10:07:30	19866.66667	19666.66667	18900	19550	0	0	0	0	0	0	0
1/14/2020 10:12:30	19866.66667	19700	18900	19600	0	0	0	0	0	0	0
1/14/2020 10:17:30	19866.66667	19700	18900	19550	0	0	0	0	0	0	0
1/14/2020 10:22:30	19866.66667	19700	18900	19550	0	5	0	0	0	0	0
1/14/2020 10:27:30	19866.66667	19700	18900	19550	0	480.3333333	0	0	0	0	0
1/14/2020 10:32:30	19866.66667	19700	18900	19566.66667	0	479.3333333	0	4299.333333	4271.666667	0	0
1/14/2020 10:37:30	19866.66667	19666.66667	18900	19550	0	479.3333333	0	4299.333333	4271.666667	4295.666667	4289.333333
1/14/2020 10:42:30	19866.66667	19666.66667	18900	19550	0	480.3333333	0	4299	4270.666667	4296.666667	4291.333333
1/14/2020 10:47:30	19866.66667	19666.66667	18900	19550	0	481	0	4302	4270.333333	4296.333333	4290.333333
1/14/2020 10:52:30	19866.66667	19666.66667	18900	19550	19	480.3333333	121	4299.666667	4272.333333	4258.666667	4290.333333
1/14/2020 10:57:30	300	2233.333333	0	0	481	479.3333333	208	4289.333333	4276.666667	4284.333333	4279
1/14/2020 11:02:30	1660	1140	18866.66667	19133.33333	481	480.3333333	212	4285.666667	4275	4281	4274.5
1/14/2020 11:07:30	2566.666667	1200	18850	19066.66667	490	480.3333333	212	4275.333333	4263.333333	4272	4265.333333
1/14/2020 11:12:30	3000	2233.333333	18833.33333	19066.66667	480	480.3333333	213.5	4282.333333	4266.333333	4276.333333	4270.333333
1/14/2020 11:17:30	3066.666667	2266.666667	18850	19200	478.3333333	479.3333333	211	4300	4263	4271.333333	4264
1/14/2020 11:22:30	1650	1525	18850	19100	478.3333333	480.3333333	211	4300	4242.333333	4250.666667	4244.666667
1/14/2020 11:27:30	2766.666667	2666.666667	18900	19266.66667	479	480.3333333	205.3333333	0	4244	4238.333333	4239
1/14/2020 11:32:30	2375	2333.333333	18866.66667	19133.33333	436	479.6666667	207.6666667	4273.333333	4259	4268	4260.333333
1/14/2020 11:37:30	1840	2366.666667	18866.66667	19233.33333	436	479.3333333	207.6666667	4254.666667	4240.666667	4256.5	4243.666667
1/14/2020 11:42:30	2166.666667	2266.666667	18833.33333	19266.66667	0	478.6666667	0	4259	4236	4244.333333	4238.666667
1/14/2020 11:47:30	2700	1320	18866.66667	19200	0	479.3333333	0	4300	4219.333333	4229.333333	4218.333333
1/14/2020 11:52:30	1380	2100	18866.66667	19133.33333	0	480.3333333	0	4300	4242.333333	4247.333333	4246
1/14/2020 11:57:30	1720	2566.666667	18866.66667	19233.33333	0	480	0	4300	4240.666667	4244.333333	4240
1/14/2020 12:02:30	1566.666667	2300	18866.66667	19266.66667	0	479	0	4300	4254	4262.333333	4257
1/14/2020 12:07:30	3033.333333	2400	18866.66667	19266.66667	0	479.6666667	0	4300	4232	4247.333333	4238.666667
1/14/2020 12:12:30	2866.666667	1750	18866.66667	19366.66667	0	480.3333333	0	4300	4229	4236	4231.666667
1/14/2020 12:17:30	3100	2466.666667	18850	19100	0	480.3333333	0	4300	4246.333333	4247	4241.333333
1/14/2020 12:22:30	2366.666667	1900	18866.66667	19266.66667	0	479.3333333	0	4300	4236.333333	4248.666667	4239.333333
1/14/2020 12:27:30	2666.666667	2733.333333	18866.66667	19266.66667	0	480.3333333	0	4300	4219.666667	4228.666667	4229.666667
1/14/2020 12:32:30	2900	1420	18866.66667	19233.33333	0	479.3333333	0	4300	4243	4260	4252
1/14/2020 12:37:30	3000	2133.333333	18866.66667	19433.33333	0	479.3333333	0	4300	4237.666667	4234	4243.333333
1/14/2020 12:42:30	1380	1933.333333	18866.66667	19100	0	479.3333333	0	4300	4242.5	4243	4241.5
1/14/2020 12:47:30	2933.333333	2600	18800	19233.33333	0	479.3333333	0	4300	4228.333333	4232.666667	4227.333333
1/14/2020 12:52:30	2166.666667	2300	18866.66667	19166.66667	0	479.3333333	0	4300	4223	4237.333333	4225.666667
1/14/2020 12:57:30	3166.666667	2700	18850	19300	0	479.3333333	0	4300	4237	4244	4238.333333
1/14/2020 13:02:30	2433.333333	2233.333333	18850	19266.66667	0	480.3333333	0	4300	4223.333333	4229.333333	4227
1/14/2020 13:07:30	3066.666667	2033.333333	18866.66667	19266.66667	0	479.6666667	0	4300	4229.333333	4237.666667	4237.666667
1/14/2020 13:12:30	3133.333333	1450	18866.66667	19433.33333	0	479.3333333	0	4300	4230	4238.666667	4237.666667
1/14/2020 13:17:30	1975	1725	18850	19133.33333	0	479.6666667	0	4300	4238.666667	4247.333333	4241.333333
1/14/2020 13:22:30	1760	1325	18850	19400	0	479.3333333	0	4300	4250	4257.5	4236
1/14/2020 13:27:30	2933.333333	1300	18900	19200	0	479.3333333	0	0	4233.666667	4246	4237.333333
1/14/2020 13:32:30	2300	2200	18900	19100	0	480.3333333	208.3333333	0	4224	4241.333333	4227
1/14/2020 13:37:30	2200	1116.666667	18900	19266.66667	0	480.3333333	212.5	0	4239.333333	4246.666667	4241.333333
1/14/2020 13:42:30	2250	2266.666667	18866.66667	19166.66667	0	480.3333333	212.5	0	4243.333333	4253	4246
1/14/2020 13:47:30	2533.333333	2000	18866.66667	19066.66667	0	480.3333333	212.5	0	4225.333333	4239	4225.333333
1/14/2020 13:52:30	2025	2366.666667	18866.66667	19266.66667	0	479.3333333	212.5	0	4218.666667	4231	4217.333333
1/14/2020 13:57:30	2766.666667	2500	18866.66667	19333.33333	0	479.3333333	212.5	0	4242.333333	4250.333333	4244
1/14/2020 14:02:30	3166.666667	2366.666667	18800	19366.66667	0	479.3333333	212.5	0	4230.333333	4244	4235.666667
1/14/2020 14:07:30	2300	2433.333333	18850	19200	0	479.3333333	212.5	0	4238.666667	4247.666667	4240.333333
1/14/2020 14:12:30	2350	2466.666667	18850	19300	0	481.5	212.5	0	4251.333333	4259.666667	4254.333333
1/14/2020 14:17:30	2666.666667	2466.666667	18850	19333.33333	0	480	212.5	0	4225	4237.666667	4227.666667
1/14/2020 14:22:30	2866.666667	2666.666667	18900	19266.66667	0	480.3333333	0	0	4225.333333	4230.333333	4224
1/14/2020 14:27:30	2566.666667	2466.666667	18900	19166.66667	0	479.3333333	211	0	4221.333333	4231.333333	4239
1/14/2020 14:32:30	2350	2666.666667	18900	19333.33333	0	479.3333333	212.5	0	4266.333333	4274	4261
1/14/2020 14:37:30	1660	2033.333333	18866.66667	19366.66667	0	480	212.5	0	4237.666667	4247.333333	4241.666667
1/14/2020 14:42:30	2266.666667	2333.333333	18850	19366.66667	0	480	212.5	0	4240.333333	4249.333333	4242.333333
1/14/2020 14:47:30	1500	1933.333333	18900	19166.66667	0	480.6666667	0	0	4218.666667	4228	4220.333333
1/14/2020 14:52:30	2800	1016.666667	18900	19366.66667	0	479.3333333	213	0	4249.666667	4261.333333	4252.333333
1/14/2020 14:57:30	2933.333333	2333.333333	18900	19300	0	479.3333333	213	0	4243.666667	4250.333333	4244.333333
1/14/2020 15:02:30	2700	2500	18900	19266.66667	0	479.6666667	213	0	4248	4241.666667	4243.333333
1/14/2020 15:07:30	2600	1500	18866.66667	19433.33333	0	479.6666667	0	0	4223.333333	4224.333333	4229.333333
1/14/2020 15:12:30	2300	2100	18900	19233.33333	0	480.3333333	212	0	4264.333333	4272	4266.333333
1/14/2020 15:17:30	1280	2200	18850	19266.66667	0	480.3333333	212	0	4220.333333	4233	4227.333333
1/14/2020 15:22:30	2966.666667	2433.333333	18900	19266.66667	0	479.3333333	212	0	4230.666667	4237.333333	4236
1/14/2020 15:27:30	2275	2233.333333	18900	19350	0	480.3333333	212	0	4236	4238	4238.5
1/14/2020 15:32:30	2766.666667	1833.333333	18900	19033.33333	0	479.3333333	212	0	4233.333333	4246.333333	4239.666667
1/14/2020 15:37:30	1950	2533.333333	18900	19200	0	480.3333333	212	0	4252.333333	4262	4255
1/14/2020 15:42:30	2833.333333	2533.333333	18866.66667	19200	0	480.3333333	0	0	4234	4234.333333	4227.666667
1/14/2020 15:47:30	2833.333333	1875	18900	19000	0	480.3333333	212.3333333	0	4237	4246	4237.666667
1/14/2020 15:52:30	2566.666667	2333.333333	18900	19133.33333	0	479.6666667	210	0	4249.333333	4256.333333	4253
1/14/2020 15:57:30	2833.333333	2200	18900	19366.66667	0	480.3333333	210	0	4224.666667	4234.666667	4234.333333
1/14/2020 16:02:30	2833.333333	2033.333333	18866.66667	19200	0	479.3333333	210	0	4243.666667	4258	4246.666667
1/14/2020 16:07:30	3133.333333	2333.333333	18866.66667	19200	0	479.3333333	210	0	4246.333333	4258.666667	4253.666667
1/14/2020 16:12:30	1750	2333.333333	18866.66667	19266.66667	0	480	210	0	4209.666667	4214.666667	4206
1/14/2020 16:17:30	2800	400	18900	19266.66667	0	480.3333333	0	0	4228.666667	4238	4229.666667
1/14/2020 16:22:30	1516.666667	1825	18900	19133.33333	0	479.3333333	213	0	4260.666667	4268.333333	4262.5
1/14/2020 16:27:30	2633.333333	1440	18900	19233.33333	0	480.3333333	213.5	0	4249.666667	4260.333333	4252.666667
1/14/2020 16:32:30	2933.333333	1280	18850	19300	0	479.3333333	213.5	0	4227.333333	4236.666667	4229.333333
1/14/2020 16:37:30	2566.666667	1750	18866.66667	19133.33333	0	480.3333333	213.5	0	4237	4242.666667	4241
1/14/2020 16:42:30	700	1900	18866.66667	19266.66667	0	480	213.5	0	4235	4243.333333	4237.333333
1/14/2020 16:47:30	3133.333333	2166.666667	18866.66667	19266.66667	0	479	213.5	0	4238	4247.333333	4240.666667
1/14/2020 16:52:30	1825	2433.333333	18850	19133.33333	0	480.3333333	213.5	0	4220.333333	4223.333333	4223.666667
1/14/2020 16:57:30	1725	1180	18866.66667	19066.66667	0	480.3333333	213.5	0	4210.333333	4216.333333	4219
1/14/2020 17:02:30	2050	1350	18866.66667	19166.66667	0	480.3333333	213.5	0	4244.666667	4255.333333	4248
1/14/2020 17:07:30	2533.333333	2366.666667	18866.66667	19200	0	478.6666667	213.5	0	4235.666667	4244	4237.666667
1/14/2020 17:12:30	2333.333333	2000	18866.66667	19233.33333	0	479.6666667	213.5	0	4222.333333	4236.333333	4229
1/14/2020 17:17:30	3166.666667	1600	18866.66667	19233.33333	0	480	213.5	0	4242.333333	4250.666667	4243.666667
1/14/2020 17:22:30	2466.666667	1550	18866.66667	19300	0	479.3333333	213.5	0	4212.666667	4222.666667	4215.666667
1/14/2020 17:27:30	2633.333333	1800	18900	19300	0	479.3333333	213.5	0	4238.333333	4234.666667	4238.666667
1/14/2020 17:32:30	2600	2500	18900	19166.66667	0	479.3333333	213.5	0	4234	4248.333333	4245
1/14/2020 17:37:30	2350	2100	18850	19166.66667	0	480.3333333	213.5	0	4237	4244.666667	4240
1/14/2020 17:42:30	3033.333333	2200	18866.66667	19200	0	479.6666667	213.5	0	4243.666667	4257.666667	4247
1/14/2020 17:47:30	2866.666667	2000	18866.66667	19100	0	479.3333333	213.5	0	4232	4247	4227.333333
1/14/2020 17:52:30	2866.666667	2633.333333	18866.66667	19266.66667	0	481	213.5	0	4220.333333	4226.666667	4221.333333
1/14/2020 17:57:30	2100	2600	18866.66667	19166.66667	0	480	213.5	0	4237.333333	4248.333333	4240.666667
1/14/2020 18:02:30	2075	1900	18866.66667	19133.33333	0	480	213.5	0	4244.5	4246	4247.333333
1/14/2020 18:07:30	2200	1300	18866.66667	19166.66667	0	480	213.5	0	4213.666667	4224.333333	4216.333333
1/14/2020 18:12:30	2125	2566.666667	18866.66667	19200	0	480	213.5	0	4231.333333	4243.333333	4234.666667
1/14/2020 18:17:30	1925	1400	18866.66667	19300	0	480	213.5	0	4242.666667	4243.666667	4245
1/14/2020 18:22:30	2600	2133.333333	18866.66667	19200	0	480	213.5	0	4244.666667	4252.666667	4246
1/14/2020 18:27:30	2233.333333	2366.666667	18866.66667	19066.66667	0	480	213.5	0	4231.333333	4238.666667	4231.333333

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/14/2020 18:32:30	2800	2233.333333	18866.66667	19066.66667	0	480	213.5	0	4235.333333	4242.333333	4237.666667
1/14/2020 18:37:30	2500	2300	18866.66667	19166.66667	0	480	213.5	0	4250.333333	4260	4250
1/14/2020 18:42:30	2400	1833.333333	18866.66667	19366.66667	0	480	213.5	0	4229.333333	4232	4232
1/14/2020 18:47:30	2600	1875	18866.66667	19266.66667	0	480	213.5	0	4249.666667	4255.333333	4251.666667
1/14/2020 18:52:30	1825	1420	18866.66667	19266.66667	0	480	213.5	0	4240.666667	4250.333333	4244.333333
1/14/2020 18:57:30	2900	2333.333333	18866.66667	19266.66667	0	480	213.5	0	4231.333333	4239.666667	4229.666667
1/14/2020 19:02:30	3133.333333	2600	18866.66667	19100	0	480	213.5	0	4254	4260	4253
1/14/2020 19:07:30	2833.333333	2433.333333	18866.66667	19266.66667	0	480	213.5	0	4224	4242.666667	4230
1/14/2020 19:12:30	1860	1966.666667	18866.66667	19066.66667	0	480	213.5	0	4239	4247	4242
1/14/2020 19:17:30	1800	2666.666667	18866.66667	19233.33333	0	480	213.5	0	4251.5	4257.5	4251
1/14/2020 19:22:30	2900	1050	18866.66667	19366.66667	0	480	213.5	0	4230	4232.333333	4232
1/14/2020 19:27:30	3166.666667	2733.333333	18866.66667	19133.33333	0	480	213.5	0	4242	4254.666667	4248
1/14/2020 19:32:30	2766.666667	1850	18866.66667	19166.66667	0	480	213.5	0	4237.666667	4247.333333	4237.666667
1/14/2020 19:37:30	1680	2200	18866.66667	19166.66667	0	480	213.5	0	4239.666667	4257.333333	4241
1/14/2020 19:42:30	2766.666667	1340	18866.66667	19266.66667	0	480	213.5	0	4242.333333	4249	4243.333333
1/14/2020 19:47:30	2700	2100	18866.66667	19233.33333	0	480	213.5	0	4240.333333	4246.333333	4243
1/14/2020 19:52:30	2150	2766.666667	18866.66667	19266.66667	0	480	213.5	0	4244.333333	4250.333333	4244.333333
1/14/2020 19:57:30	2300	1460	18866.66667	19033.33333	0	480	213.5	0	4235.666667	4245.333333	4236.666667
1/14/2020 20:02:30	3200	2166.666667	18866.66667	19266.66667	0	480	213.5	0	4235	4248	4241
1/14/2020 20:07:30	2966.666667	2366.666667	18866.66667	19200	0	480	213.5	0	4234	4236.333333	4229.333333
1/14/2020 20:12:30	2266.666667	2750	18866.66667	19233.33333	0	480	213.5	0	4221	4229	4215.333333
1/14/2020 20:17:30	1800	300	18866.66667	19266.66667	0	480	213.5	0	4252.333333	4261.333333	4254
1/14/2020 20:22:30	3133.333333	333.3333333	18800	19166.66667	0	480	213.5	0	4243	4251.666667	4243.666667
1/14/2020 20:27:30	2350	2533.333333	18866.66667	19133.33333	0	480	213.5	0	4219	4233.666667	4220.666667
1/14/2020 20:32:30	2866.666667	2100	18866.66667	19233.33333	0	480	213.5	0	4238	4238.666667	4234.666667
1/14/2020 20:37:30	2600	2533.333333	18866.66667	19400	0	480	213.5	0	4244.666667	4256	4249.333333
1/14/2020 20:42:30	2933.333333	2633.333333	18866.66667	19300	0	480	213.5	0	4249	4256.333333	4252.333333
1/14/2020 20:47:30	2433.333333	2033.333333	18866.66667	19100	0	480	213.5	0	4251.5	4267	4254.5
1/14/2020 20:52:30	2200	2233.333333	18850	19233.33333	0	480	213.5	0	4210.666667	4220.666667	4210.333333
1/14/2020 20:57:30	2533.333333	2633.333333	18866.66667	19300	0	480	213.5	0	4254.333333	4263.333333	4256.666667
1/14/2020 21:02:30	2250	2433.333333	18800	19400	0	480	213.5	0	4237.333333	4245.666667	4232.333333
1/14/2020 21:07:30	2600	1925	18800	19200	0	480	213.5	0	4234.333333	4242.333333	4236.333333
1/14/2020 21:12:30	3133.333333	1540	18800	19266.66667	0	480	213.5	0	4234.333333	4242.666667	4235.666667
1/14/2020 21:17:30	1650	2733.333333	18800	19266.66667	0	480	213.5	0	4226	4231.666667	4226
1/14/2020 21:22:30	2500	1775	18800	19300	0	480	213.5	0	4233.333333	4250	4241.666667
1/14/2020 21:27:30	3100	1350	18800	19266.66667	0	480	213.5	0	4245.333333	4250.333333	4247.333333
1/14/2020 21:32:30	2433.333333	2400	18800	19266.66667	0	480	213.5	0	4232.333333	4243	4228.666667
1/14/2020 21:37:30	2466.666667	2366.666667	18800	18800	0	480	213.5	0	4242	4253	4244
1/14/2020 21:42:30	2466.666667	1480	18800	19366.66667	0	480	213.5	0	4246.666667	4258.333333	4253.666667
1/14/2020 21:47:30	2966.666667	2000	18800	19233.33333	0	480	213.5	0	4222.666667	4235.666667	4228.666667
1/14/2020 21:52:30	1440	2533.333333	18800	19000	0	480	213.5	0	4243.333333	4260	4249.666667
1/14/2020 21:57:30	2225	920	18800	18800	0	480	213.5	0	4233	4232.666667	4235.333333
1/14/2020 22:02:30	2966.666667	2400	18800	19200	0	480	213.5	0	4238	4251.333333	4243.333333
1/14/2020 22:07:30	2666.666667	1120	18800	19266.66667	0	480	213.5	0	4239.333333	4249	4238.666667
1/14/2020 22:12:30	1900	1833.333333	18800	19366.66667	0	480	213.5	0	4228.666667	4243.666667	4230.666667
1/14/2020 22:17:30	1800	1950	18750	19200	0	480	213.5	0	4228.333333	4237.666667	4229
1/14/2020 22:22:30	1440	1520	18750	19166.66667	0	480	213.5	0	4244.333333	4251.666667	4244.333333
1/14/2020 22:27:30	3033.333333	2566.666667	18750	19166.66667	0	480	213.5	0	4239.333333	4249.666667	4241.333333
1/14/2020 22:32:30	2433.333333	1250	18750	19166.66667	0	480	213.5	0	4237	4245	4240.666667
1/14/2020 22:37:30	1975	2500	18750	19266.66667	0	480	213.5	0	4196	4206	4198.333333
1/14/2020 22:42:30	3066.666667	1975	18750	19266.66667	0	480	213.5	0	4247.333333	4253.333333	4246.666667
1/14/2020 22:47:30	2000	2666.666667	18750	19233.33333	0	480	213.5	0	4245.666667	4250.333333	4245.333333
1/14/2020 22:52:30	2175	300	18750	19266.66667	0	480	213.5	0	4241.666667	4257	4250.333333
1/14/2020 22:57:30	2600	2666.666667	18750	19266.66667	0	480	213.5	0	4232.333333	4232	4234.333333
1/14/2020 23:02:30	3000	2000	18750	19450	0	480	213.5	0	4213.333333	4222.333333	4215
1/14/2020 23:07:30	1975	1575	18850	19100	0	480	213.5	0	4261.666667	4268.5	4263.666667
1/14/2020 23:12:30	2400	2666.666667	18866.66667	19066.66667	0	480	213.5	0	4211.333333	4218.333333	4212.333333
1/14/2020 23:17:30	3033.333333	1725	18866.66667	19200	0	480	213.5	0	4247.666667	4255.666667	4249.666667
1/14/2020 23:22:30	2025	1775	18866.66667	18866.66667	0	480	213.5	0	4257.5	4265	4258.666667
1/14/2020 23:27:30	2966.666667	2000	18866.66667	19100	0	480	213.5	0	4209.333333	4216	4217
1/14/2020 23:32:30	1300	1725	18866.66667	19033.33333	0	480	213.5	0	4245.666667	4249.333333	4247
1/14/2020 23:37:30	3066.666667	1900	18866.66667	19166.66667	0	480	213.5	0	4255.666667	4262	4257.333333
1/14/2020 23:42:30	3166.666667	2633.333333	18866.66667	19200	0	480	213.5	0	4245.333333	4250.666667	4246
1/14/2020 23:47:30	2766.666667	2500	18866.66667	19400	0	480	213.5	0	4244.666667	4250.666667	4247.333333
1/14/2020 23:52:30	1780	2300	18866.66667	19200	0	480	213.5	0	4202.666667	4207.333333	4200.666667
1/14/2020 23:57:30	1700	2566.666667	18866.66667	19033.33333	0	480	213.5	0	4224.666667	4237.333333	4230
1/15/2020 0:02:30	3000	2533.333333	18800	19166.66667	0	0	0	0	4236	4246.333333	4241.333333
1/15/2020 0:07:30	1620	1900	18800	19133.33333	0	0	0	0	4237	4245.333333	4239
1/15/2020 0:12:30	2900	1660	18800	19133.33333	0	0	0	0	4263.5	4271	4267
1/15/2020 0:17:30	3100	2000	18800	19166.66667	0	0	0	0	4217.666667	4227	4220
1/15/2020 0:22:30	2466.666667	2033.333333	18800	19233.33333	0	0	0	0	4234	4244	4241.666667
1/15/2020 0:27:30	2433.333333	2366.666667	18800	19200	0	0	0	0	4239	4246	4242
1/15/2020 0:32:30	2933.333333	1560	18800	19166.66667	0	0	0	0	4242.333333	4250.333333	4244.666667
1/15/2020 0:37:30	2900	1240	18800	19233.33333	0	0	0	0	4234	4245.666667	4238.666667
1/15/2020 0:42:30	2900	2366.666667	18800	19333.33333	0	0	0	0	4231	4228	4233.666667
1/15/2020 0:47:30	2266.666667	2400	18800	19366.66667	0	0	0	0	4231.333333	4244.333333	4233
1/15/2020 0:52:30	2800	880	18800	19166.66667	0	0	0	0	4252.666667	4259.333333	4256.333333
1/15/2020 0:57:30	2466.666667	1933.333333	18800	19133.33333	0	0	0	0	4223	4228.333333	4225
1/15/2020 1:02:30	1820	2050	18800	19266.66667	0	0	0	0	4229.666667	4251.666667	4230.666667
1/15/2020 1:07:30	1480	2600	18800	19200	0	0	0	0	4249.333333	4259.666667	4251.333333
1/15/2020 1:12:30	1680	1933.333333	18800	19266.66667	0	0	0	0	4231.333333	4239.666667	4230.666667
1/15/2020 1:17:30	2600	1900	18800	19233.33333	0	0	0	0	4231	4236.666667	4233.666667
1/15/2020 1:22:30	1780	1100	18800	19366.66667	0	0	0	0	4254.666667	4259.666667	4257
1/15/2020 1:27:30	2800	2766.666667	18800	19166.66667	0	0	0	0	4215	4231	4214
1/15/2020 1:32:30	1900	1140	18800	19166.66667	0	0	0	0	4246	4250.333333	4249.333333
1/15/2020 1:37:30	2250	1950	18800	19200	0	0	0	0	4254.333333	4262.666667	4255.333333
1/15/2020 1:42:30	1900	1280	18800	19066.66667	0	0	0	0	4232.666667	4243.333333	4235.666667
1/15/2020 1:47:30	1520	2266.666667	18800	19266.66667	0	0	0	0	4233	4239.333333	4233.666667
1/15/2020 1:52:30	1720	2533.333333	18800	19133.33333	0	0	0	0	4225	4235	4229.333333
1/15/2020 1:57:30	2466.666667	1580	18800	19133.33333	0	0	0	0	4238.333333	4247	4241.333333
1/15/2020 2:02:30	2966.666667	2075	18800	19166.66667	0	0	0	0	4238	4246	4236.666667
1/15/2020 2:07:30	3066.666667	1580	18800	19066.66667	0	0	0	0	4257	4267.333333	4259.666667
1/15/2020 2:12:30	2125	2133.333333	18800	19200	0	0	0	0	4246.333333	4253.333333	4246.666667
1/15/2020 2:17:30	3100	1450	18800	19366.66667	0	0	0	0	4250.666667	4260	4257
1/15/2020 2:22:30	2633.333333	2666.666667	18800	19100	0	0	0	0	4249.666667	4260	4252
1/15/2020 2:27:30	2633.333333	850	18800	19366.66667	0	219	0	0	4231.666667	4243.666667	4233.666667
1/15/2020 2:32:30	1725	2750	18800	18966.66667	0	483	0	0	4242	4255.333333	4256
1/15/2020 2:37:30	2600	2633.333333	18800	19200	0	480.3333333	0	0	4252.666667	4260	4254.333333
1/15/2020 2:42:30	2375	2466.666667	18800	19100	0	480.3333333	0	0	4217	4225	4216.333333
1/15/2020 2:47:30	1925	2766.666667	18800	19233.33333	0	479.6666667	0	0	4248.666667	4255.333333	4250
1/15/2020 2:52:30	1600	1575	18700	19200	0	479.3333333	0	0	4255.333333	4262.333333	4258.333333
1/15/2020 2:57:30	2200	2333.333333	18766.66667	19233.33333	0	480.3333333	0	0	4239.333333	4248	4240

Date	R1-U Voltage Phase A Terminal Z	R1-M Voltage Phase A Terminal Z	R2 Voltage Phase A Terminal Y	R3 Voltage Phase A Terminal Y	Generator-Bldg-"I" VRMS L1-L2	Generator-Bldg-"E" VRMS L1-L2	Generator-Bldg-"A" VRMS L1-L2	Generator-Trailer-A1 VRMS L1-L2	Generator-Trailer-A2 VRMS L1-L2	Generator-Trailer-B1 VRMS L1-L2	Generator-Trailer-B2 VRMS L1-L2
1/15/2020 3:02:30	2633.333333	1425	18800	19500	0	480.3333333	0	0	4240.333333	4246	4236.333333
1/15/2020 3:07:30	2666.666667	1600	18800	19233.33333	0	480.3333333	0	0	4246.333333	4255.666667	4251.666667
1/15/2020 3:12:30	2766.666667	2500	18800	19366.66667	0	479.6666667	0	0	4225.666667	4230.666667	4227.333333
1/15/2020 3:17:30	1640	1475	18800	19166.66667	0	480.3333333	0	0	4258.666667	4267.666667	4261
1/15/2020 3:22:30	1600	2600	18800	18866.66667	0	480.3333333	0	0	4239.333333	4248.333333	4242.333333
1/15/2020 3:27:30	3000	1866.666667	18800	19200	0	479	0	0	4244.666667	4247.333333	4243.333333
1/15/2020 3:32:30	3133.333333	1400	18800	19233.33333	0	479.3333333	0	0	4264	4273	4268
1/15/2020 3:37:30	2466.666667	1875	18800	19200	0	479.3333333	0	0	4245.666667	4255	4248.5
1/15/2020 3:42:30	2866.666667	1966.666667	18800	19366.66667	0	479.3333333	0	0	4211	4229.666667	4225
1/15/2020 3:47:30	2700	2733.333333	18800	19100	0	479.3333333	0	0	4248	4254	4249.333333
1/15/2020 3:52:30	1650	2633.333333	18800	19400	0	479.6666667	0	0	4245.333333	4257	4248
1/15/2020 3:57:30	2366.666667	1520	18800	19200	0	480.3333333	0	0	4222.333333	4225.333333	4222.333333
1/15/2020 4:02:30	2766.666667	2700	18800	19166.66667	0	480.3333333	0	0	4250	4255.333333	4250.333333
1/15/2020 4:07:30	2300	2700	18800	19133.33333	0	480	0	0	4253.333333	4259.333333	4256.666667
1/15/2020 4:12:30	2433.333333	1966.666667	18800	19300	0	480.3333333	0	0	4228.333333	4234.666667	4231.333333
1/15/2020 4:17:30	2966.666667	1725	18800	19350	0	479.6666667	0	0	4237.333333	4249.333333	4241.666667
1/15/2020 4:22:30	3033.333333	1640	18800	19166.66667	0	480.3333333	0	0	4242.666667	4253	4241.333333
1/15/2020 4:27:30	2375	2050	18800	19266.66667	0	479.3333333	0	0	4246.666667	4252.666667	4246.666667
1/15/2020 4:32:30	1600	1400	18800	19133.33333	0	480.3333333	0	0	4263	4268	4262.333333
1/15/2020 4:37:30	2800	1850	18800	19166.66667	0	480.3333333	0	0	4222.333333	4230.666667	4223.333333
1/15/2020 4:42:30	1625	1866.666667	18800	19200	0	481	0	0	4244.666667	4256	4250
1/15/2020 4:47:30	2933.333333	2666.666667	18800	19166.66667	0	480.3333333	0	0	4236.333333	4242.666667	4238
1/15/2020 4:52:30	2733.333333	2000	18800	19266.66667	0	480.3333333	0	0	4228.666667	4236.333333	4229.666667
1/15/2020 4:57:30	2125	1080	18800	19233.33333	0	479.6666667	0	0	4239.333333	4245.333333	4240.666667
1/15/2020 5:02:30	2600	2466.666667	18800	19100	0	480.3333333	0	0	4251.666667	4262.333333	4257
1/15/2020 5:07:30	1600	1140	18800	19200	0	480.3333333	0	0	4221.666667	4234	4227.333333
1/15/2020 5:12:30	2025	2433.333333	18800	19066.66667	0	480.3333333	0	0	4234.666667	4243	4240
1/15/2020 5:17:30	2125	2466.666667	18800	19000	0	479.3333333	0	0	4240.333333	4250.666667	4246
1/15/2020 5:22:30	2400	350	18800	19166.66667	0	479.3333333	0	0	4234	4246	4237.333333
1/15/2020 5:27:30	1840	1966.666667	18800	19266.66667	0	479.3333333	0	0	4227.333333	4231.333333	4226
1/15/2020 5:32:30	2666.666667	2633.333333	18800	19233.33333	0	479.3333333	0	0	4249.333333	4255.333333	4250.666667
1/15/2020 5:37:30	2300	1575	18800	18966.66667	0	480	0	0	4236	4245.333333	4237.333333
1/15/2020 5:42:30	2275	2500	18800	19333.33333	0	479.3333333	0	0	4228.333333	4233	4221
1/15/2020 5:47:30	2533.333333	1875	18800	19033.33333	0	479.3333333	0	0	4244	4252.333333	4247.333333
1/15/2020 5:52:30	2275	2200	18800	19366.66667	0	479.3333333	0	0	4230.333333	4240	4232.333333
1/15/2020 5:57:30	2700	2466.666667	18800	19166.66667	0	479.3333333	0	0	4240.333333	4251	4244.666667
1/15/2020 6:02:30	2200	1866.666667	18800	19166.66667	0	479.3333333	0	0	4241	4244	4245.666667
1/15/2020 6:07:30	3033.333333	1950	18800	19166.66667	0	479.3333333	0	0	4243	4251.666667	4246
1/15/2020 6:12:30	3033.333333	2133.333333	18800	19266.66667	0	480.3333333	0	0	4241.666667	4253.333333	4243.666667
1/15/2020 6:17:30	2333.333333	1100	18800	19266.66667	0	480.3333333	0	0	4250.666667	4259	4254
1/15/2020 6:22:30	2833.333333	1400	18800	19266.66667	0	479.3333333	0	0	4208.666667	4219	4211
1/15/2020 6:27:30	2833.333333	1900	18800	19200	0	479.3333333	0	0	4242	4254.666667	4248
1/15/2020 6:32:30	2466.666667	2466.666667	18800	19166.66667	0	479.3333333	0	0	4244	4252.666667	4244
1/15/2020 6:37:30	1750	2266.666667	18800	19133.33333	0	479.3333333	0	0	4225.333333	4234.666667	4231.666667
1/15/2020 6:42:30	2000	1283.333333	18800	18900	0	478.3333333	0	0	4244.333333	4260	4252.666667
1/15/2020 6:47:30	2700	2566.666667	18866.66667	19166.66667	0	480.3333333	0	0	4222.333333	4234	4226.666667
1/15/2020 6:52:30	3166.666667	2200	18866.66667	19200	0	479.3333333	0	0	4237.666667	4253.333333	4246.333333
1/15/2020 6:57:30	2233.333333	1100	18866.66667	19200	0	479.3333333	0	0	4245	4248	4240.333333
1/15/2020 7:02:30	2325	2333.333333	18866.66667	19133.33333	0	480.3333333	0	0	4246	4257	4250.666667
1/15/2020 7:07:30	2366.666667	2666.666667	18866.66667	19333.33333	0	480.3333333	0	0	4226	4240.333333	4232.666667
1/15/2020 7:12:30	2466.666667	2075	18866.66667	19133.33333	0	480.3333333	0	0	4218.333333	4229	4223
1/15/2020 7:17:30	2733.333333	1775	18866.66667	19133.33333	0	480.3333333	0	0	4253	4261	4256.666667
1/15/2020 7:22:30	2666.666667	2300	18866.66667	19266.66667	0	479.3333333	0	0	4222.333333	4230.333333	4222.333333
1/15/2020 7:27:30	2350	2300	18866.66667	19000	0	479.3333333	0	0	4243	4265.333333	4249.333333
1/15/2020 7:32:30	2733.333333	2466.666667	18866.66667	19333.33333	0	479.3333333	0	0	4225	4238.333333	4232
1/15/2020 7:37:30	1700	2066.666667	18866.66667	18966.66667	0	479.3333333	0	0	4246.666667	4253.666667	4247.666667
1/15/2020 7:42:30	2433.333333	2050	18866.66667	19200	0	479.3333333	0	0	4231.666667	4243.666667	4235
1/15/2020 7:47:30	2233.333333	1975	18866.66667	19233.33333	0	480.3333333	0	0	4257	4263.333333	4257
1/15/2020 7:52:30	2833.333333	1725	18866.66667	19033.33333	0	480.3333333	0	0	4229.333333	4243.333333	4234.666667
1/15/2020 7:57:30	1240	2400	18866.66667	19266.66667	0	480.3333333	0	0	4235.333333	4241.333333	4237.666667
1/15/2020 8:02:30	1880	1800	18866.66667	19133.33333	0	480.3333333	0	0	4241	4243	4235.666667
1/15/2020 8:07:30	2325	1580	18866.66667	19366.66667	0	480.3333333	0	0	4212.666667	4220.666667	4213
1/15/2020 8:12:30	3100	1300	18866.66667	19100	0	479.3333333	0	0	4254.333333	4263	4255
1/15/2020 8:17:30	2366.666667	2400	18866.66667	19266.66667	0	480.3333333	0	0	4243.333333	4250.333333	4246
1/15/2020 8:22:30	2466.666667	1850	18850	19233.33333	0	480.3333333	0	0	4237.666667	4245	4234.333333
1/15/2020 8:27:30	2000	1625	18850	19166.66667	0	480.3333333	0	0	4253.5	4257.666667	4252.333333
1/15/2020 8:32:30	2633.333333	1966.666667	18866.66667	19266.66667	0	484	0	0	4203.666667	4214	4210
1/15/2020 8:37:30	2866.666667	2300	18866.66667	19266.66667	0	481	0	0	4247	4252	4246
1/15/2020 8:42:30	2125	1800	18866.66667	19166.66667	0	479.3333333	0	0	4240.666667	4245.333333	4241
1/15/2020 8:47:30	3066.666667	1750	18866.66667	19433.33333	0	480.3333333	0	0	4251	4269	4253.666667
1/15/2020 8:52:30	3166.666667	2100	18866.66667	19333.33333	0	479.3333333	0	0	4237	4248.666667	4238.666667
1/15/2020 8:57:30	2233.333333	1300	18866.66667	19333.33333	0	480	0	0	4225.333333	4243.333333	4227.333333
1/15/2020 9:02:30	2433.333333	1450	18866.66667	19333.33333	0	480.3333333	0	0	4225	4229.333333	4226.666667
1/15/2020 9:07:30	2933.333333	1420	18866.66667	19033.33333	0	479.3333333	0	0	4209.333333	4221.333333	4210.666667
1/15/2020 9:12:30	2866.666667	1260	18850	19266.66667	0	479.3333333	0	28	4252	4261.666667	4256.666667
1/15/2020 9:17:30	2933.333333	2366.666667	18850	19333.33333	0	480.3333333	0	4299.333333	4210	4219.333333	4220.333333
1/15/2020 9:22:30	2733.333333	2533.333333	18850	19100	0	476	0	4299.333333	4261.333333	4273.333333	4262.333333
1/15/2020 9:27:30	2600	1650	18800	19066.66667	0	479.3333333	0	4258.333333	4257.666667	4258.666667	4257.333333
1/15/2020 9:32:30	1975	1700	18800	19200	0	479.3333333	0	4300.333333	4216.333333	4214.333333	4205.333333
1/15/2020 9:37:30	2933.333333	1360	18866.66667	19300	0	480	210	0	4262.333333	4269.333333	4262.333333
1/15/2020 9:42:30	3066.666667	1850	18866.66667	19300	0	479.3333333	214	4246.333333	4234.333333	4244.333333	4289
1/15/2020 9:47:30	2000	2333.333333	18866.66667	19266.66667	0	480.3333333	214	4271	4259	4262.333333	4289
1/15/2020 9:52:30	2075	1925	18833.33333	19366.66667	0	480.3333333	0	4233.666667	4223.666667	4231	0
1/15/2020 9:57:30	2166.666667	2500	18833.33333	19133.33333	0	480.3333333	214	4239	4228.666667	4237.666667	4227
1/15/2020 10:02:30	1550	1550	18850	19000	0	481	214	4241	4229.333333	4235.333333	4227.333333
1/15/2020 10:07:30	2966.666667	1925	18866.66667	18966.66667	0	479.3333333	214	4232.666667	4217	4226.333333	4219.333333
1/15/2020 10:12:30	2833.333333	1580	18866.66667	19100	0	479.3333333	212.3333333	4240.333333	4226.666667	4234.666667	4227.666667
1/15/2020 10:17:30	2933.333333	2433.333333	18866.66667	18966.66667	0	479.6666667	212.5	4239.333333	4226	4235.333333	4225
1/15/2020 10:22:30	2466.666667	1575	18866.66667	19200	0	480.3333333	212.5	4299.333333	4257.666667	4267.333333	4261
1/15/2020 10:27:30	2300	2000	18866.66667	19366.66667	0	480.3333333	212.5	4299.333333	4238.666667	4244.666667	4243.333333
1/15/2020 10:32:30	2933.333333	1600	18866.66667	19233.33333	148	479.6666667	101	4299.333333	4238.666667	4248	4241
1/15/2020 10:37:30	3133.333333	2633.333333	18866.66667	19133.33333	478.3333333	479.3333333	207.3333333	0	4234.666667	4245.666667	4241.333333
1/15/2020 10:42:30	19900	19700	18866.66667	19600	478.3333333	479.3333333	208	3983	4271	4296.333333	4289.333333
1/15/2020 10:47:30	19900	19700	18866.66667	19600	478.3333333	479.3333333	209	4299	4292	4296.333333	24
1/15/2020 10:52:30	19900	19700	18866.66667	19550	478.3333333	479.3333333	207	4299	4292	4296.333333	24
1/15/2020 10:57:30	19900	19700	18866.66667	19550	478.3333333	479.3333333	207	4299	4292	4296.333333	24
1/15/2020 11:02:30	19866.66667	19650	18866.66667	19566.66667	478.3333333	479.3333333	207	4299	4292	4296.333333	24
1/15/2020 11:07:30	19866.66667	19650	18866.66667	19566.66667	478.3333333	480.3333333	205	4299	4292	4296.333333	24
1/15/2020 11:12:30	19900	19700	18866.66667	19600	343	480.3333333	207.3333333	4299	4292	4296.333333	24
1/15/2020 11:17:30	19900	19700	18866.66667	19600	20	480.3333333	42	4299	4292	4296.333333	24
1/15/2020 11:22:30	19900	19700	18866.66667	19600	20	479.3333333	42	4299	4292	4296.333333	24
1/15/2020 11:27:30	19866.66667	19666.66667	18866.66667	19566.66667	20	479.3333333	42	4299	4292	4296.333333	24