



MONTHLY PROGRESS REPORT

Project: **Wallingford Energy Center Expansion Project**
Client: **Wallingford Energy II, LLC**
Location: **Wallingford, Connecticut**
Job Number: **1015-5113**
Reporting Period: **June 1st, 2017 through June 30th, 2017**

Submitted:
July 10th, 2017
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EXECUTIVE SUMMARY

ProEnergy is pleased to report six (6) Major Milestones were completed this month. The scheduled dates below are based on the October 26th Baseline Schedule. The six (6) completed milestones are:

- GSU Major Assembly (Mile 4.30) – The GSU dress out was completed June 29th. This was 9 days ahead of the July 7th scheduled date.
- Civil Works Complete-CTG Sound Wall (Mile 2.60) - The grade beam was completed on June 19th. This was 44 days ahead of July 25th scheduled date.
- Civil Works Complete-GSU Sound Wall (Mile 2.70) – The grade beam was completed on June 15th. This was 37 days ahead of the July 25th scheduled date.
- Major Equipment Rough Set - GSU (Mile 3.40) – The GSU was set on June 20th. This was 8 days ahead of the June 28th scheduled date.
- Assembly of Major Equipment-CTG 1 (Mile 4.10) – Setting the filter house modules was completed on June 8th. This was 21 days ahead of the June 28th scheduled date.
- Assembly of Major Equipment-CTG 2 (Mile 4.20) - Setting the filter house modules was completed on June 8th. This was 21 days ahead of the June 28th scheduled date.

The Substantial Completion of the project is still holding to the 27 November 2017 date.

The current critical path flows through completing the control system, setting the protection relays, cable pulls and installation of the SCR/Stack. Most of these systems are the same as those identified last month. The PES focus this month was to implement the plans to improve the completion of these tasks. The plans included:

- A. PES has hired NEI to complete the MCC I/O design, turbine controls, BOP integration and system checkouts. This was done to help expedite the completion of the control system with the goal of starting the loop checks by the middle of July.
- B. PES hired CEG to complete the engineering of the GSU and Generator Relay settings and the installation of the relay panels. CEG has been tasked with creating the backfeed procedure for the July 29th Outage.
- C. Sega to complete the Relay Coordination Study for Wallingford Electric and LS Power review.
- D. The PDC Building was set 5 days early to enable the site to identify any issues and inspect the control systems sooner. This also allowed the site to install the 480V cable tray ahead of schedule.
- E. Expediting the setting of the CTG Soundwall Panels that have the penetrations for the cable bus and cable tray to the 15KV Switchgear. This was done to allow

the pulling of the 15KV cables from the GSU to the 15KV Switchgear ahead of schedule and to pull the cables more efficiently.

- F. Complete all the underground piping in order to complete the backfill of the area in between the two units. This was done in preparation of setting the SCR and Stack Assemblies without interference from the other crafts working in the same area.

The site was visited by the Connecticut Department of Labor to conduct an onsite audit of the craft personnel. Subsequently PES reclassified some of the electrical staff. To comply with DOL requirements, all the electrical work with regard to pulling and terminating cables has to be done by Connecticut licensed electricians. PES had hired electrical helpers to assist the licensed electricians pull cables. This was found unacceptable by the DOL.

There are several Major Milestones that have slipped due to late engineering of the controls and the late delivery of equipment. Both the I&C Engineering IFR and IFC drawing release dates have slipped 20 calendar days respectively. The goal of hiring NEI is bring those dates in. The SCR6/7 rough set and Major Assembly have slipped 6 calendar days respectively. PES will have two (2) crews working to assemble the SCR/Stack to help bring those completion dates in. PES and LS Power agreed to store the gas turbine engines at the Sedalia PES warehouse until the respective lube oil systems are flushed. This is causing the milestone date to push out. The plan is to start lube oil flushing by the 3rd week of July.

Weekly review meetings are held each Thursday morning to discuss project status and issues.

ProEnergy is actively looking to improve the schedule dates for each major milestone and most importantly the Substantial Completion.

1. MAJOR ACTIVITIES COMPLETED

1.1. ENGINEERING- None reported

1.2. PROCUREMENT

- 1.2.1 The SCR (PES131003) was partially delivered on site
- 1.2.2 The 8X GSU Transformer was delivered on site
- 1.2.3 The Cable Buss (PES138975/PES139023) was delivered on Site
- 1.2.4 The Final FG Coalescers 1 & 2 were delivered to site

1.3 FABRICATION / SHOP WORK

- 1.3.1 The PDC was delivered on site
- 1.3.2 SB 205 (vent system modification) the kits have been received and the final balance of the kit will be installed during installation of the package.
- 1.3.3. The GSU Protection Panel is being fabricated in the PES Shop

1.4 CONSTRUCTION

- 1.4.1. Controls Mark VI/9070 & BOP Integration
 - NEI has been sub-contracted to conduct an inspection of the controls system and issue a condition report with a plan forward to get the MarkVI system working as originally designed, upgrade the HMI with the added systems & integrate the to the plants existing BOP. NEI has started their inspection and will have a report and plan forward by July 7th.
- 1.4.2. #6 CTG Equipment
 - Set and hot bolted the filter house plenum and modules.
 - Cleaned inlet plenum & A/B modules.
 - Finished bolt up of coil B to plenum flange.
 - Installed Filter house platform & ladder.
 - Finished the landing pads around the units.
 - Installed final filters in unit 6.
 - Poured grout on unit #6.
- 1.4.3. #6 Auxiliary Skid
 - T.L.O. piping/tank has been hand cleaned.
 - T.L.O. demister is installed.
 - Motor-gearbox-pump alignment
 - Shoot shims & Final set
 - Tied LO piping into Aux Skid.
 - Fabricated IA and DW tied in to Aux Skid.
 - Fabricated & installed unit drain.
 - Installed water wash interconnect hose.
- 1.4.4. #6 Sprint Skid
 - Set on foundation.
 - Motor-gearbox-pump alignment
 - Tied in IA to sprint skid.
- 1.4.5. #6 Ammonia Injection Skid

- Fabricated IA to ACFU unit 6.

1.4.6. #6 Fuel Gas Filter

- Set the Fuel Gas Filter on its pad.
- Continued fabricating piping for this system, supports and vent lines.
- Fabricated underground supports and set them.
- Laid out the underground pipe to the filter, welded, MT, wrapped, installed Gilsulate and backfilled.

1.4.7. #6 Switchgear & Generator Breaker

- Started running 15KV cable from switchgear to generator

1.4.8. #6 Evap System

- Installing sump drain and supply piping header. Had to rework the evaporator cooling drain and supply headers due to the interference with the structural steel for filter house.

1.4.9. #6 Fin Fan Lube Oil Cooler Skid

- Fabricated pipe supports
- Shoot shims & skid final set
- Tied in to Lube Oil supply and return to Aux skid.
- Staged supports for LO piping in the field.
- Laid out for civil to form and poured pedestals.

1.4.10. #6 LP Water Injection Skid

- Set the skid on the foundation & anchored
- Tied the demin water piping into LP Water Injection Skid.
- Installed flex hose, cut back/installed FL to length

1.4.11. #6 CO2 Rack Skid

- Installed CO2 skid.

1.4.12. #6 Oily Water Drains

- Continued drain stub ups.
- Installed the drain along the east side of SCR foundation, excavated and back filled

1.4.13. #6 Wash Water Drains

- Installed the lift station and completed the underground to the lift station. Ran conduit to the lift station.
- Backfilled the underground pipe.

1.4.14. #6 SCR

- Received 2 modules and set them in the laydown yard.

1.4.15. #6 Stack – No scheduled work**1.4.16. #7 CTG Equipment –**

- Installed Fire suppression package piping.
- TLO air/oil separator – removed filter and cleaned, reinstalled and set on roof skid.
- Cleaned & installed exhaust diffuser interface spring
- Set filter house and completed bolting sections
- Installed piping, fittings & tubing on TLO air oil separator
- Set and hot bolted the filter house plenum and modules.
- Installed Filter House platform.
- Finished the landing pads around the unit.
- Finished bolt up of platforms.
- Installed final filters in unit 6.

1.4.17. #7 Auxiliary Skid

- TLO tank/piping cleaned
- Shoot shims & Final set
- Installed Interconnect hoses
- Tied LO into Aux Skid.
- Installed TLO tank air/oil separator
- Tied in LO to CTG.
- DW/IA/LO/DR pipe completed

1.4.18. #7 Sprint Skid

- Final set
- Fabricated DW supply and return.

1.4.19. #7 Ammonia Injection Skid

- Fabricated CA for tie in on skid w/random.

1.4.20. #7 Fuel Gas Filter

- Poured the flow fill for the foundation
- Fabricated pipe & supports
- Underground Fuel Gas pipe excavation completed.
- Installed pipe on sandbags and welded out. MT, wrapped, installed Gilsulate and back filled.

- Staged supports to be installed on 07FG-3-010

1.4.21. #7 Evap System

- Installing sump drain and supply piping header. Found interference issue with filter house support beam.

1.4.22. #7 Fin fan Lube Oil Cooler Skid

- The final setting of the skid completed.
- Set tank demister for Generator Lube Oil

1.4.23. #7 LP Water Injection Skid

- The final setting of the skid completed.
- Fabricated & installed CA to AFCU skid.

1.4.24. #7 CO2 Rack Skid

- Installed CO2 skid

1.4.25. #7 Oily Water Drains

- Installed riser drains on the east side of unit 7 and backfilled

1.4.26. #7 Wash Water Drains

- Finished excavation and back fill on the waste water tank.
- Fabricated and install piping
- Installed the drains to the Aux transformers completed and back filled. Installed tracer wire.

1.4.27. #7 Water Injection Skid

- Drain line 07DR-315/304 installed and ready for backfill.

1.4.28. #7 SCR

- Received 3 modules and set them in the laydown yard.

1.4.29. #7 Stack – No Scheduled work

1.4.30. 480V System

- Set the two 480V transformers
- Set the 480V Switchgear
- Installed 17 Cable Tray supports
- Installed 650' feet 24" inch cable tray ready to be anchored
- Installed 40' feet 12" inch cable tray ready to be anchored

- Installed 80' feet 30" inch cable tray ready to be anchored
- Installed 100' Feet of Cable Tray Dividers

1.4.31. 15KV System

- Set the 15KV Switchgear & set on foundation.
- Installed Braids on Unit 6 and Unit 7.
- Finished installing rollers for the 15KV cable pulls.
- Finished installing steel for supports
- Routed 12 cable for a total of 2484 feet of cables from Unit #7 Generator to the 15kv Switchgear.
- Routed 12 cable for a total of 600 feet of cables from Unit #6 Generator to the 15kv Switchgear.

1.4.32. GSU Sound Wall

- O&G - Installed steel columns on the south and east walls (column 5 to 11). Completed grout work also on the columns
- Poured concrete on the GSU sound wall south and east side.
- Completed erection and bolt up Buss cable support system from the GSU to the Southeast corner of the existing sound wall of CTG #5
- Finished back fill for GSU.

1.4.33. GSU H-Frame

- Center line GSU foundation & set GSU.
- Removed and stack steel plates that were use for the GSU.
- Started & finished continuity test, connected vacuum hoses.
- GSU dress out of the GHS by the PES HV crew completed

1.4.34. CTG Sound Wall

- Completed the installation of the sound wall steel on the south and East walls. All steel columns grout completed
- Grade beams poured on both walls and backfilled south wall
- O&G installed Precast Panels P-9, 10, 11, 12 on the South wall.

1.4.35. Fuel Gas Pipeline Installation

- Due to the minor indications identified during required visual inspection, PES elected to go beyond the specified guidelines and perform x-ray exams of welds that were not required by code.

- 35 out of 42 welds demonstrated minor indications identified at some point in the weld.
- Minor repairs were made to all the indications. The system is ready for the required pressure tests.

1.4.36. BOP Piping Main Underground Headers

- Finished excavating for unit # 7 west side and compaction
- Back fill on the tie-in in between unit # 1 and 2 ,back fil on the north side of unit # 5 and 6
- Tie in unit 7 IA/CA/PW underground lines to main header
- Tie in unit 7 DW, DW and AM headers into 00 headers, all 6 headers complete in unit 7 trench.
- Valve vaults 100% installed with manhole covers
- All underground headers 100% hydro tested and sold
- AM, PW, IA, CA underground piping 100% complete
- Back filled on the south side in between unit 6 and 7.
- Installed all riser PVC sleeves for heat trace installation after backfill unit 7

1.4.37. Grounding

- Installed 160' Feet 4/0 Ground Wire
- Installed 50 feet of ¾" inch ground rod.
- Installed 200' feet 4/0 bare to Cable Bus
- Installed grounding cables on the south side of units 6 & 7.

1.4.38. Lighting

- Terminated Lights

1.4.39. PDC Building

- Set PDC building on foundation.
- Installed temporary power to the PDC with 250' Feet 3/C 8awg
- De-terminated and removed the old ovation cabinets. Use two of the panels for the marshalling cabinet for the MCC and I/O modules.

1.4.40. Auxiliary Transformer

- Finished Auxiliary transformers foundation.
- Remove transformer panel doors & set on foundation.
- Pulled 1182' feet of 15kv 2/0 from LISW to Aux Transformer.
- Pulled 384' feet XHHW #4awg from LISW to Aux Transformer

1.4.41. Underground Conduit & temp power

- Installed conduits into vault from cable tray.
- Checked the amp draw on temporary power to the Generator Heaters every day, between 9.1, 9.2 & 9.4 amps

2. PLANNED ACTIVITIES FOR NEXT PERIOD**2.1. ENGINEERING****2.1.1. Controls**

- NEI to create MCC interconnect drawing.
- NEI to finalize the Mark VI and 9070 Controls Integration.
- NEI to create online-line topology diagram.

2.1.2. Heat Trace

- Finalize drawings and order material.

2.2. PROCUREMENT LOOK AHEAD

- 2.2.1.** Continue with Procurement as outlined in the schedule.

2.3. FABRICATION / SHOP WORK

- 2.3.1.** Fabricate the GSU Relay Protection Panel.

2.4. CONSTRUCTION**2.4.1. Controls & I&C**

- Install conduit and trays at the MTTB turbine panel at Unit 6 and 7.
- Start pulling cables to the MCC from the MTTB and MGTB.

2.4.2. 6 CTG Equipment

- Install the load shaft.
- Install filter house pre-filters and final filters.
- Complete PID system walk down.
- Verify H-Frame bolt-up.
- Grout the CTG Package.
- Complete installation of platforms & ladders.
- Start Generator Lube Oil Flush.
- Start Turbine Lube Oil Flush.
- Start Hydraulic Start Oil Flush.

2.4.3. #6 Evap System

- Complete the sump drain and supply piping header.
- Install the two circulating water pumps.
- Install missing drift eliminator media.
- Start pulling power and instrumentation cable.

2.4.4. #6 Fin Fan Lube Oil Cooler Skid

- Complete underground conduit.
- Start TLO and GLO circuit flush.

2.4.5. #6 Auxiliary Skid (Wash Water, Hydraulic Start System, TLO Tank & Filters)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

2.4.6. #6 Sprint Skid (Pump/Motor, Enclosure Heater & Louvers)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

2.4.7. #6 Ammonia Injection Skid – No work scheduled. Expected delivery July 10th.**2.4.8. #6 Fuel Gas System & Filter**

- Pig & rupture disk blow fuel gas piping to FG filters.
- Complete above ground piping to the turbine package.

2.4.9. #6 LP Water Injection Skid (Pump/Motor/Gearbox, Enclosure Heater & Louvers)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

2.4.10. #6 CO2 Rack Skid

- Complete piping.

2.4.11. #6 Oily Water Drains -

- Complete piping.

2.4.12. #6 Wash Water Drains

- Complete lift Station pump and control wiring.

2.4.13. #6 Stack & SCR

- Set SCR.

2.4.14. #7 CTG Equipment –

- Install the load shaft.
- Install filter house pre-filters and final filters.
- Complete PID system walk down.
- Verify H-Frame bolt-up.
- Grout the CTG Package.
- Complete installation of platforms & ladders.
- Start Generator Lube Oil Flush.
- Start Turbine Lube Oil Flush.
- Start Hydraulic Start Oil Flush.

2.4.15. #7 Evap System

- Complete the sump drain and supply piping header.
- Install missing drift eliminator media.
- Start pulling power and instrumentation cable.

2.4.16. #7 Fin Fan Lube Oil Cooler Skid

- Complete underground conduit.
- Start TLO and GLO circuit flush.

2.4.17. #7 Auxiliary Skid (Wash Water, Hydraulic Start System, TLO Tank & Filters)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

2.4.18. #7 Sprint Skid (Pump/Motor, Enclosure Heater & Louvers)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

2.4.19. #7 Ammonia Injection Skid – No work scheduled. Expected delivery July 10th.**2.4.20. #7 Fuel Gas System & Filter**

- Pig & rupture disk blow fuel gas piping to FG filters.

2.4.21. #7 LP Water Injection Skid (Pump/Motor/Gearbox, Enclosure Heater & Louvers)

- Complete installing above ground piping.
- Start Pulling power & instrument cables.

- 2.4.22. #7 CO2 Rack Skid**
 - Complete piping.
- 2.4.23. #7 Oily Water Drains -**
 - Complete piping.
- 2.4.24. #7 Wash Water Drains**
 - Complete piping.
- 2.4.25. #7 Stack & SCR**
 - Set SCR & Stack.
- 2.4.26. Main Header Fuel Gas Pipeline Installation**
 - Rupture disk blow fuel gas piping from the isolation valve to FG filters for Unit 6 & 7.
- 2.4.27. Waste Water Main Underground Piping Headers**
 - Complete pump and controls installation.
- 2.4.28. Oily Waste Water Main Underground Piping Headers**
 - Install underground piping and tie-n to existing system.
- 2.4.29. 15KV System**
 - Complete pulling cables and terminations.
- 2.4.30. 480V System**
 - Start pulling and terminating power cables.
- 2.4.31. GSU Sound & East Walls**
 - Set wall panels.
- 2.4.32. GSU H-Frame**
 - Complete installation of the hand operated switch with EJ Electric.
 - Complete installation of the grounding switch with EJ Electric.
- 2.4.33. CTG South Sound Wall**
 - Install remaining of Panels.
- 2.4.34. CTG East Sound Wall**
 - Install the remaining panels.

2.4.35. Install/Test GSU

- Terminate the 15kv cables.

2.4.36. Install Control Cables GSU

- Install Conduits to the cable tray on the East Sound Wall.
- Install GSU Protection Panel cables from the existing cable tray at the GSU Protection Panel penetrating the MCC Building North wall going down the wall to underground and up to the new cable tray along the sound wall.
- Start pulling & Terminate cables at GSU

3. PROCUREMENT STATUS

The following purchase orders have been issued.

- 3.1.** SCR (PES131003) on site by 7/5/2017. Load 4 (10699-CS1200 – DG Duct Assembly) Unit 7
- 3.2.** Gen Protection panels x 2 – Ready to Ship 8/9/17
- 3.3.** CTG 1 & 2 Stack – Upper Stack on site 8/2/17
- 3.4.** CEM System in single shelter (NOx, O2, CO, NH3) – (PES134525) – On transit to be in site 9/15/2017

4. DELIVERY STATUS

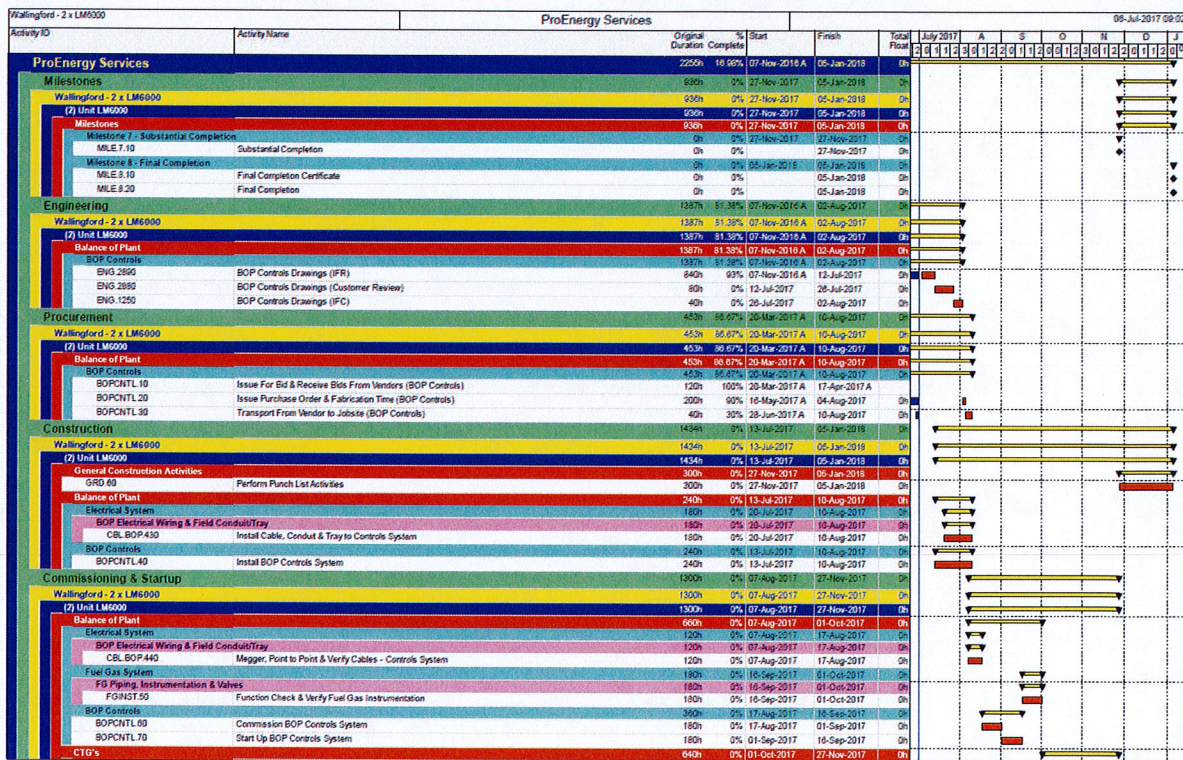
Items on Site = GREEN	IFB	PO	RTS	Shipping	Critical @ Site Date	Notes
GSU 1 & Bushings			5-Jun	at site 6/20	21-Jun	Complete
480V SWGR 1	14-Dec	18-Jan	26-Apr	at site 5/2	14-Aug	Complete
480V SWGR 2	14-Dec	18-Jan	26-Apr	at site 5/2	18-Aug	Complete
480V Aux XFMR 1	14-Dec	19-Jan	9-Jun	19-Jun	28-Jun	Complete
480V Aux XFMR 2	14-Dec	19-Jan	9-Jun	19-Jun	20-Jul	Complete
13.8KV SWGR / GCB	5-Dec	31-Jan	2-Jun	6-Jun	19-Jul	Complete
Dead End Structure w/ Disconnect	18-Aug	22-Nov	4-May	at site 5/12	15-May	Complete
PDC Enclosure			21-Apr	load 5/30 at site 6/5-6/6	at site 6/8	Complete
Gen Protection Panels x 2	31-Jan	7-Apr	31-Jul	6-Jul	9-Aug	material on order to build panel out
GSU Protection Panel x 1	31-Jan		31-Jul		27-Sep	CEG fabricating
Cable Bus	14-Dec	13-Apr	9-Jun	at site 6/14	2-Aug	Complete
CTG 1 Package		Packaging	27-Jun	at site 4/4	22-May	Complete
CTG 2 Package		Packaging	27-Jun	at site 4/5	25-May	Complete
CT 1		Aero	30-Dec		8-Aug	In Sedalia storage
CT 2		Aero	30-Dec		8-Aug	In Sedalia storage
Gen 1		Packaging	24-Feb	at site 4/6	29-May	Complete
Gen 2		Packaging	11-Feb	at site 3/30	1-Jun	Complete
LO Fin Fan 1		12-Oct	21-Apr		4-Aug	Complete
LO Fin Fan 2		12-Oct	21-Apr		4-Aug	Complete
WI LP Skid 1		Packaging	30-Dec		21-Aug	Complete
WI LP Skid 2		Packaging	30-Dec		21-Aug	Complete
Aux Skid 1		Packaging	1-Feb		21-Aug	Complete
Aux Skid 2		Packaging	1-Feb		21-Aug	Complete
SPRINT Skid 1		Packaging	3-Feb		21-Aug	Complete
SPRINT Skid 2		Packaging	3-Feb		21-Aug	Complete
Final FG Coalescer 1	12-Dec	10-Jan	21-Jun		5-Sep	Complete
Final FG Coalescer 2	12-Dec	10-Jan	21-Jun		5-Sep	Complete
CTG 1 SCR		29-Aug	On site		2-Aug	Complete
CTG 2 SCR		29-Aug	1-Jun		2-Aug	Duct Assembly to be on site by 7/5/17
CTG 1 Stack		29-Aug	1-Jun		2-Aug	Upper Stack on transit, to be on site by 7/11/17
CTG 2 Stack		29-Aug	1-Jun		2-Aug	Upper Stack on transit, to be on site by 7/11/17
CEMS	7-Dec	24-Jan	30-Jun	1 day	15-Sep	FAT 7/13
Filter House 1		Packaging	19-May		12-Jul	Complete
Filter House 2		Packaging	19-May		12-Jul	Complete
Fire Protection Cabinet 1		Packaging	2-Dec		27-Sep	Complete
Fire Protection Cabinet 2		Packaging	2-Dec		27-Sep	Complete
CTG 1 Controls			21-Jul		25-Jul	NEI Performing Work
CTG 1 Rebuild Server / HMI			21-Jul		21-Jul	NEI Performing Work
CTG 2 Controls			21-Jul		25-Jul	NEI Performing Work
CTG 2 Rebuild Server / HMI			21-Jul		21-Jul	NEI Performing Work
BOP Controls			21-Jul		27-Jul	NEI Performing Work
Waste Water Tank / Assembly	4-Jan		10-Jul		24-Oct	Heater Pads delivery slipped
Manhole / Lift Station	4-Jan		5-May		19-Sep	Complete
CTG Sound Wall	6-Feb		19-Jun	at site 7/10	29-Jun	
GSU Sound Wall	6-Feb		26-Jun	at site 7/10	9-Aug	

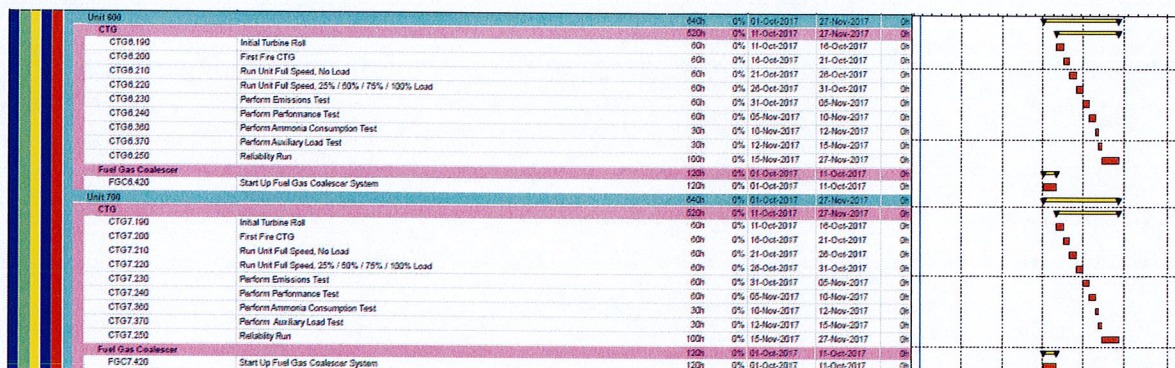
5. SCHEDULE

5.1. ANALYSIS

5.1.1. Critical Path Schedule Analysis.

The current critical path flows through the design, fabrication, installation and commissioning of the controls system as an entirety. It is noted that the system is only critical to the activities pushing out the substantial completion date but not past the 12/15/2017 date and currently is holding the November 27 date as was shown on the last month's report. Currently NEI is being used in the implementation of the controls system to expedite controls progress to continue improving the end date. The current goal is to start shooting loops by the middle of July assuming that cables will be pulled and terminated by then.





Following closely behind the Controls installation for critical path are:

- Protective Relay Equipment.
- Final Install of Electrical Equipment – 15kV SWGR, GCB & Aux Disconnect Switch.
- Cable Bus / Electrical Installation.
- SCR/Stack Install.

CEG has been utilized to assist with verifying that all the relaying necessary for the upcoming outage will be ready for when the bus from GSU 7X to the 13.8kV SWGR is powered up. They are certain their scope will be ready.

Along with the necessary relay protection the 13.8kV SWGR/GCB & 15kV Auxiliary Disconnect Switch is nearing critical to be sure they will be ready for the cable bus to go live. The electrical group has this in their sites and has a work around in the event this work cannot be completed.

The cable bus installation is still near critical as from the beginning of the project. Current progress is being made and the sound wall has been completed far enough to not drive out the cable bus install further.

The SCR / Stack install continues to remain near critical as well as some deliveries have pushed out. Our installation crew believes they can beat the current proposed durations significantly, but we are not reducing durations until initial install starts to verify productivity and to allow for float.

5.1.2. MILESTONES COMPLETED:

- Civil Works Complete-GSU Sound Wall Complete – 6/15/2017
- Civil Works Complete-CTG Sound Wall Complete – 6/19/2017
- GSU Rough Set on Foundation – 6/20/2017
- CTG6 Major Assembly Complete – 6/08/2017
- CTG7 Major Assembly Complete – 6/08/2017
- GSU Major Assembly Complete – 6/29/2017

5.1.3. MILESTONE SLIPPAGE:**5.1.3.1. I&C Engineering IFR Drawings Released.**

- Slippage has been a common occurrence with the controls IFR drawings through the project. In talking with NEI, the new contractor to perform controls, it is believed that they can have the MCC interconnect drawings and 1-Line Integration Topology drawings complete in 2 days after scope is completely understood.
- Slipped 20 calendar days.

5.1.3.2. I&C Engineering IFC Drawings Released.

- Slippage directly related to IFR drawing release.
- Slipped 20 calendar days.

5.1.3.3. SCR6/7 Routh Set on Foundation.

- Slippage caused by issues with shipment from Mexico and crossing customs. This has caused extended delivery times for the SCR/exhaust stack materials. Four SCR modules for each unit are currently on site with the remaining items for the transition and stack in transit.
- Slipped 6 calendar days.

5.1.3.4. SCR6/7 Major Assembly.

- The major assembly has pushed out due to an increased time in shipping of the materials to site. In talking with the installation team used on other Innova SCR/Stack installations, they believe they can improve on schedule.
- Slipped 6 days.

5.1.3.5. CTG Units Arrive at Site.

- It has been decided to allow the CTG engines remain at PES campus until it is necessary to have them at site to allow for safe storage and maintenance. This will cause this milestone to push accordingly until they are shipping to site near the later part of the project.

5.2. Notable Changes:

- 5.2.1.** Adjusted relationship between GPR6.40 'Install Generator Protective Relay 6' & GRP7.40 'Install Generator Protective Relay 7' from a FS relationship to a SS relationship as the relays will be in the same cabinet and installed simultaneously by CEG.
- 5.2.2.** Added negative lag of 6 days to CTG.STK6.10 FS 'Rough Install SCR & Stack on Foundation' relationship with predecessor PROC.STK6.30 'Transport from Vendor to Jobsite (SCR & Stack)' due to the SCR installed starting prior to the full arrival of the SCR/Stack materials.
- 5.2.3.** Added negative lag of 6 days to CTG.STK7.120 FS 'Rough Install SCR & Stack on Foundation' relationship with predecessor PROC.STK7.30 'Transport from Vendor to Jobsite (SCR & Stack)' due to the SCR installed starting prior to the full arrival of the SCR/Stack materials.
- 5.2.4.** MILE.2.60 'CTG Sound Wall Complete' removed predecessors CTGSW.170 'Install CTG East Sound Wall Panels' and CTGSW.50 'Install CTG South Sound Wall Panels' and added predecessors with FS logic CTGSW.150 'Install CTG South Sound Wall Grade Beam' and CTGSW.160 'Install CTG East Sound Wall Grade Beam' due to the milestone being based on civil work.
- 5.2.5.** Modified relationship between CBL.BOP.430 'Install Cable, Conduit & Tray to Controls System' and CBL.BOP.440 'Megger, Point to Point & Verify Cables – Controls System' from FS to FF+1 week. This modification was done based on the new contractor's plans for installation of the controls system and timeline and the total system cable install will not take place prior to starting the testing of the cables.
- 5.2.6.** Modified relationship between CTG7.CBL.140 'Install Cable, Conduit & Tray to Controls System' and CTG7.CBL.280 'Megger, Point to Point & Verify Cables – Controls System' from FS to FF+1 week. This modification was done based on the new contractor's plans for installation of the controls system and timeline and the total system cable install will not take place prior to starting the testing of the cables.

- 5.2.7. Modified relationship between CTG6.CBL.270 'Install Cable, Conduit & Tray to Controls System' and CTG6.CBL.280 'Megger, Point to Point & Verify Cables – Controls System' from FS to FF+1 week. This modification was done based on the new contractor's plans for installation of the controls system and timeline and the total system cable install will not take place prior to starting the testing of the cables.
- 5.2.8. Removed CTG6.180 'Commission & Check Out CTG Package' predecessors CTG6.CBL.80 'Megger, Point to Point & Verify Cables – SCR / Stack' and CTG.STK6.70 'Install Platforms & Ladders' because these tasks are not pertinent to commissioning the CTG package.
- 5.2.9. Added with FS relationship, successor CTG6.220 'Run Unit Full Speed, 25% / 50% / 75% / 100% Load' to CTG6.CBL.80 'Megger, Point to Point & Verify Cables - SCR / Stack' as the SCR will need to be functional once running the unit on load.
- 5.2.10. Added with FS relationships, predecessors CTG.STK6.210 'Weld Out SCR & Exhaust Stack' and CTG.STK6.60 'Install Expansion Joint To Stack & GT' to activity CTG6.190 'Initial Turbine Roll' to better define the time of when the unit can begin start up with the SCR/Stack installation process.
- 5.2.11. Added successor with FS relationship CTG.STK6.70 'Install Platforms & Ladders' to CTG.STK6.210 'Weld Out SCR & Exhaust Stack' because of modifying logic in the SCR/Stack installation process to not lose good logic in construction processes
- 5.2.12. Modified relationship between CTG.STK6.210 'Weld Out SCR & Exhaust Stack' & CTG.STK6.60 'Install Expansion Joint To Stack & GT' from FS to SS as construction works to reduce build time due to the delay in some of the materials to the site.
- 5.2.13. Added with FS relationship, successor CTG6.230 'Perform Emissions Test' to CTG.STK6.70 'Install Platforms & Ladders' to show the need to have access to the stack for emissions testing.
- 5.2.14. Removed CTG7.180 'Commission & Check Out CTG Package' predecessor CTG7.CBL.180 'Megger, Point to Point & Verify Cables – SCR / Stack' because this task is not pertinent to commissioning the CTG package.
- 5.2.15. Added with FS relationship, successor CTG7.220 'Run Unit Full Speed, 25% / 50% / 75% / 100% Load' to CTG7.CBL.180 'Megger, Point to Point & Verify Cables - SCR / Stack' as the SCR will need to be functional once running the unit on load.
- 5.2.16. Added with FS relationships, predecessors CTG.STK7.1120 'Weld Out SCR & Exhaust Stack' and CTG.STK7.130 'Install Expansion Joint To Stack & GT' to activity CTG7.190 'Initial

- Turbine Roll' to better define the time of when the unit can begin start up with the SCR/Stack installation process.
- 5.2.17. Added successor with FS relationship CTG.STK7.140 'Install Platforms & Ladders' to CTG.STK7.1120 'Weld Out SCR & Exhaust Stack' because of modifying logic in the SCR/Stack installation process to not lose good logic in construction processes
 - 5.2.18. Modified relationship between CTG.STK7.1120 'Weld Out SCR & Exhaust Stack' & CTG.STK7.130 'Install Expansion Joint To Stack & GT' from FS to SS as construction works to reduce build time due to the delay in some of the materials to the site.
 - 5.2.19. Added with FS relationship, successor CTG7.230 'Perform Emissions Test' to CTG.STK7.140 'Install Platforms & Ladders' to show the need to have access to the stack for emissions testing.
 - 5.2.20. Removed predecessor AM6.420 'Start up Ammonia Skid' from CTG6.190 'Initial Turbine Roll' because ammonia is not needed until run the unit full under load.
 - 5.2.21. Added predecessor AM6.420 'Start up Ammonia Skid' with FS logic to CTG6.220 'Run Unit Full Speed, 25% / 50% / 75% / 100% Load' in response to the above change in logic.
 - 5.2.22. Removed predecessor AM7.420 'Start up Ammonia Skid' from CTG7.190 'Initial Turbine Roll' because ammonia is not needed until run the unit full under load.
 - 5.2.23. Added predecessor AM7.420 'Start up Ammonia Skid' with FS logic to CTG7.220 'Run Unit Full Speed, 25% / 50% / 75% / 100% Load' in response to the above change in logic.
 - 5.2.24. Logic between CTG.STK6.210 'Weld Out SCR & Exhaust Stack' and CTG.STK6.70 'Install Platforms & Ladders' was changed from a FS relationship to FF +1week in an construction build effort to improve on the loss in time on delivery. The SCR can be welded out then the platforms & stairs installed in that area while the stack is being welded out, due to this overlap in work, 1 week of improvement is gained.
 - 5.2.25. Logic between CTG.STK7.1120 'Weld Out SCR & Exhaust Stack' and CTG.STK7.140 'Install Platforms & Ladders' was changed from a FS relationship to FF +1week in an construction build effort to improve on the loss in time on delivery. The SCR can be welded out then the platforms & stairs installed in that area while the stack is being welded out, due to this overlap in work, 1 week of improvement is gained.
 - 5.2.26. Added predecessors BUS2B.40 'Install Cable Bus Phase I' and BUS2B.60 'Install Cable Bus Phase II' with FS logic to activity GSU4.410 'Soak Transformer for 24 Hours' as the GSU can't be soaked until the cable bus is installed.

5.3. OVERVIEW

5.3.1. Schedule attached.

6. QUALITY

- Performed hydro test, all systems are from vault to header to unit 6 and to unit complete tested the following systems:
- Instrument air 1" required 263 tested 290 acceptable
- Potable Water 1" required 150 tested 175 acceptable
- Ammonia 0.75" required 225 tested 275 acceptable
- Demin Water 3" required 150 tested 150 acceptable
- Performed hydro test, all systems are from vault to header to unit 6 and to unit 7 complete tested the following systems:
- Compressed Air 1" required 263 tested 290 acceptable
- Inspected welds (visual and dye penetrant- 1- 6" welds) on the various stainless lines. Visually inspected 47 welds and Liquid dye penetrant of 27 welds. All welds were found to be acceptable.

7. SAFETY

- 7.1. First Aid, Pipefitter had back pain. Safety coordinator took him to the emergency room, gave them ice pack and muscle relaxer. He went back to work the next day.
- 7.2. Daily safety audits performed on PES Crafts and subcontractors working on job site. No major issues to report.
- 7.3. Provide safety orientations to new personnel and new contractors coming to the job site as per PES EHS Manual.

8. ISSUES/ACTION

- 8.1. Department of Labor had a site visit. The staffing of the craft personnel has been clarified. This clarification mostly affects the electrical craft. All the electrical work requiring electricians will have to be Licensed E2 Electricians. This includes pulling and terminating cables. PES is having problems filling the electrical positions with the quantity required to complete the cable pulls and terminations to meet the back feed and loop check dates.

9. CHANGE MANAGEMENT

- 9.1. Open Change Orders – None
- 9.2. Pending Change orders

- PES and LS Power are working on a change order to cover miscellaneous scope changes.

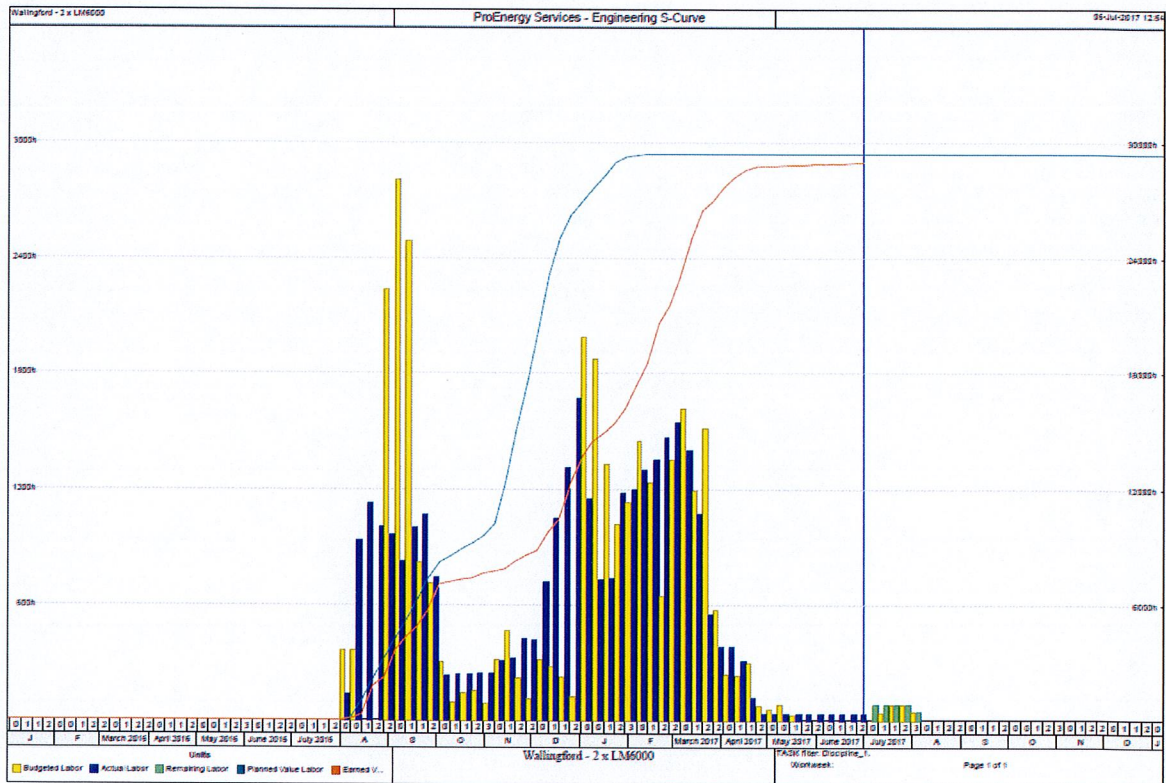
10. DRAWING LIST

10.1. Schedule shows key drawing dates.

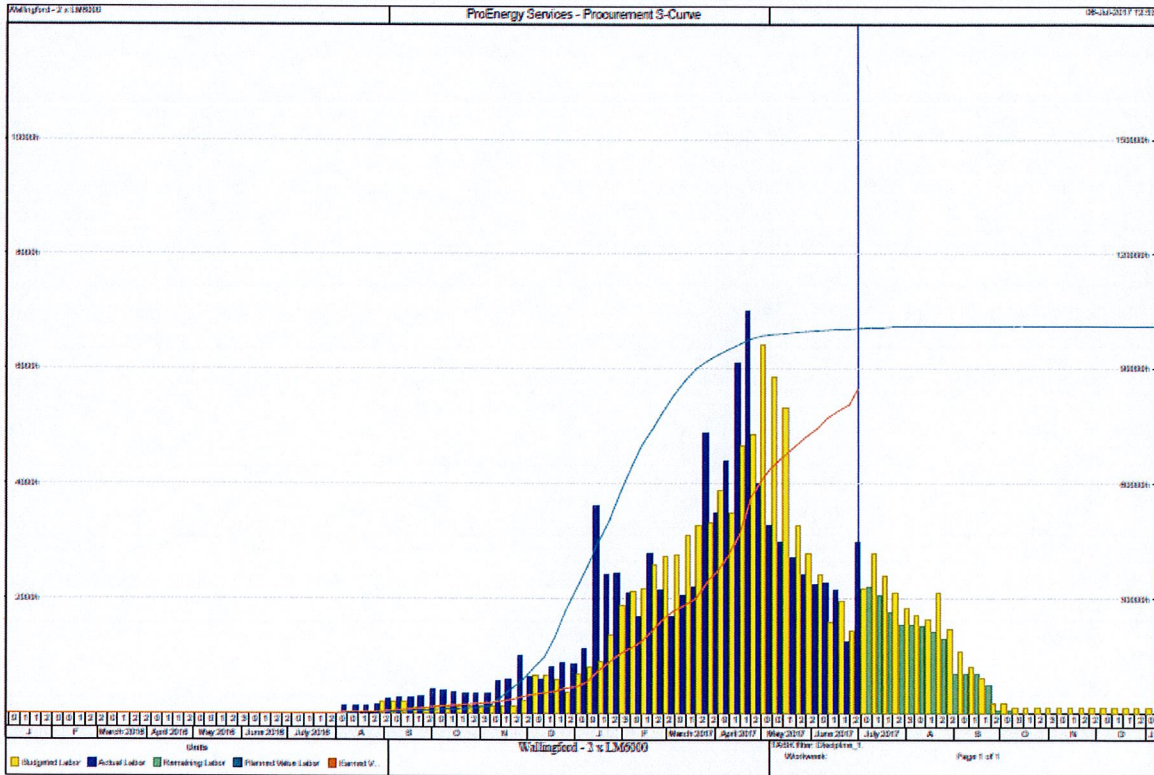
11. ANALYTICAL

See attached progress curves.

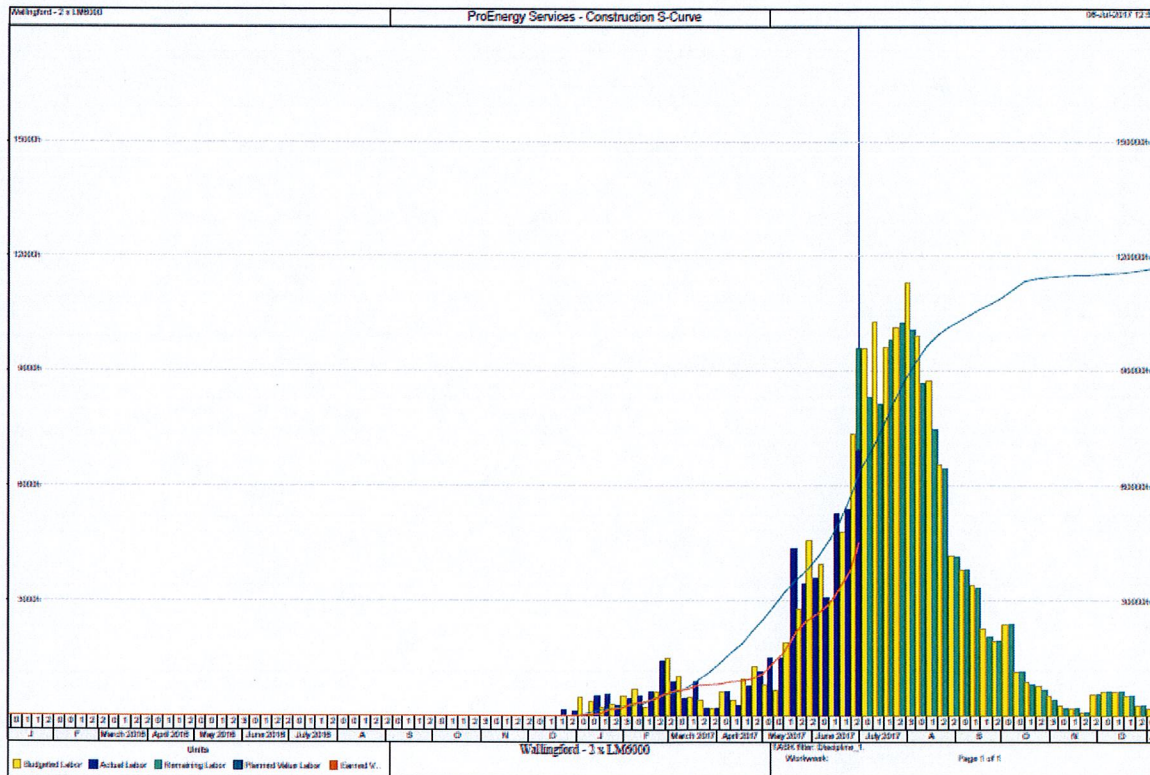
11.1. Engineering.



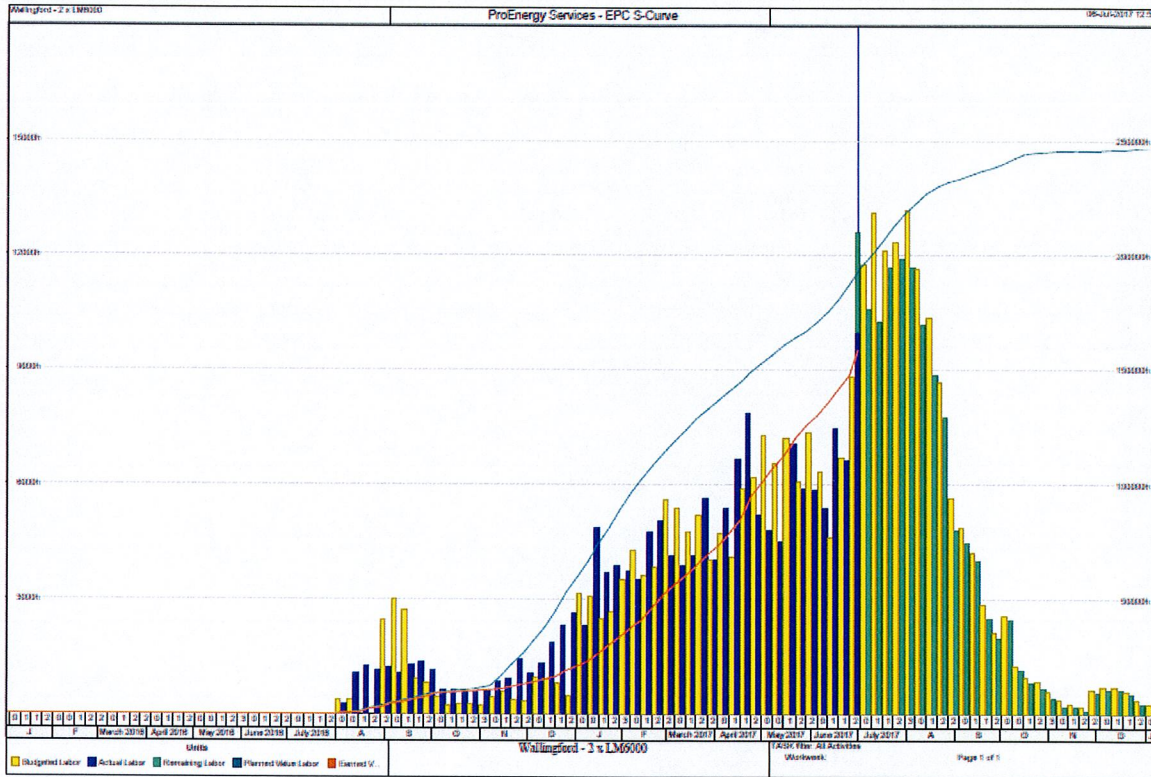
11.2. Procurement.



11.3. Construction.



11.4. EPC.



11.5. MATERIALS INSTALLED

Concrete			
Foundations	Flowable Fill	Concrete	Total c/y
GT Generators	172	344	516
Exhaust Stack/SCR	290	420	710
Electrical / Control Building	50	75	125
GSU Transformers 13.8kV delta x 13.8kV / 230 kV	30	100	130
Fin fan lube oil, Sprint, Water Injection, CTG removal pad, CO2 rack, Auxiliary skids, Fuel Filter	250	175	425
Cable Tray & Bus foundations	54	80	134
Sound wall & Grade beams	0	472	472
Back fill underground piping	566	0	566
Total cubic yards installed	1412	1666	3078
Pipe, cable, conduit, etc	Jun-17	Total installed	
Large Bore Pipe	380'	380'	
Small Bore Pipe	430'-1"	4805'-6"	
Code Welds			
Cable	3696'	4406'	
Conduit	155'	155'	
Cable Tray	770'	1795'	
Terminations			
Loop Checks			

12. LABOR STATISTICS.

12.1. ProEnergy Services Safety Information for Wallingford Project

	2017 June	Project Total
Employees	68	68
Hours worked	18398	56889
Lost Workdays Incident Rate	0	0
Total Recordable Incident Rate	0	0
DART (Days away, restricted, transferred)	0	0

13. PERMIT STATUS.

13.1. ProEnergy received Connecticut Major Contractor license.

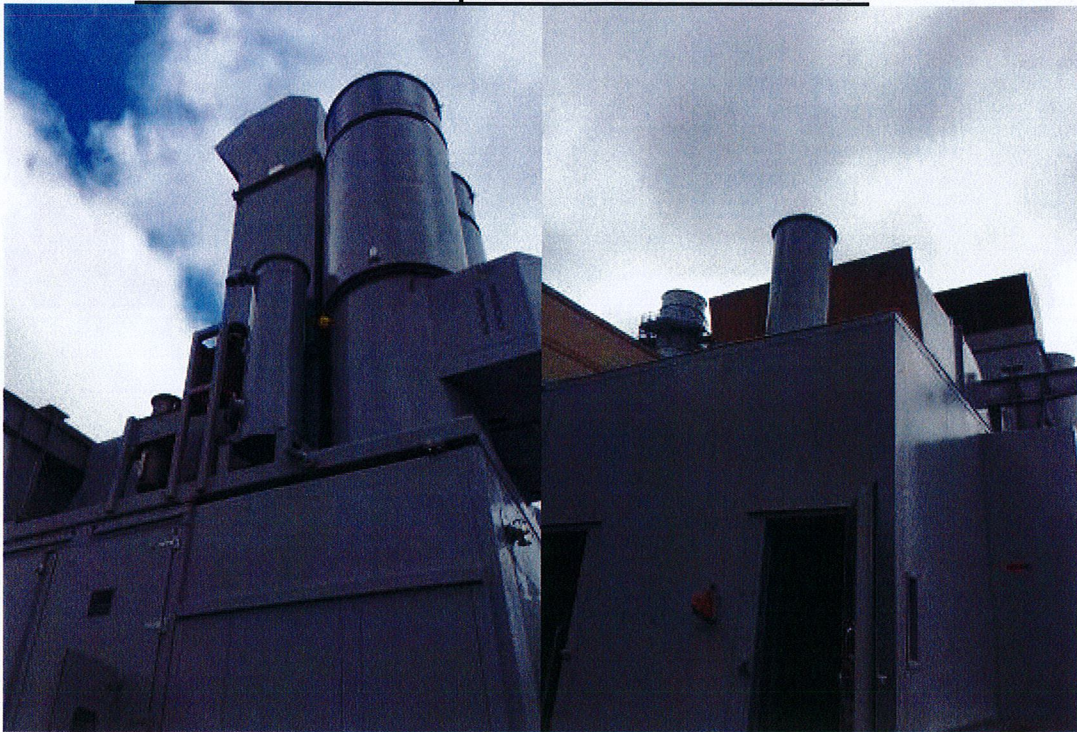
13.1.1. Storm Water received October 3.

13.1.2. D&M approval received on September 29.

13.1.3. None required for Change Order 2 work.

14. PHOTOS

Installed TLO air/oil separator & GLO tank demister



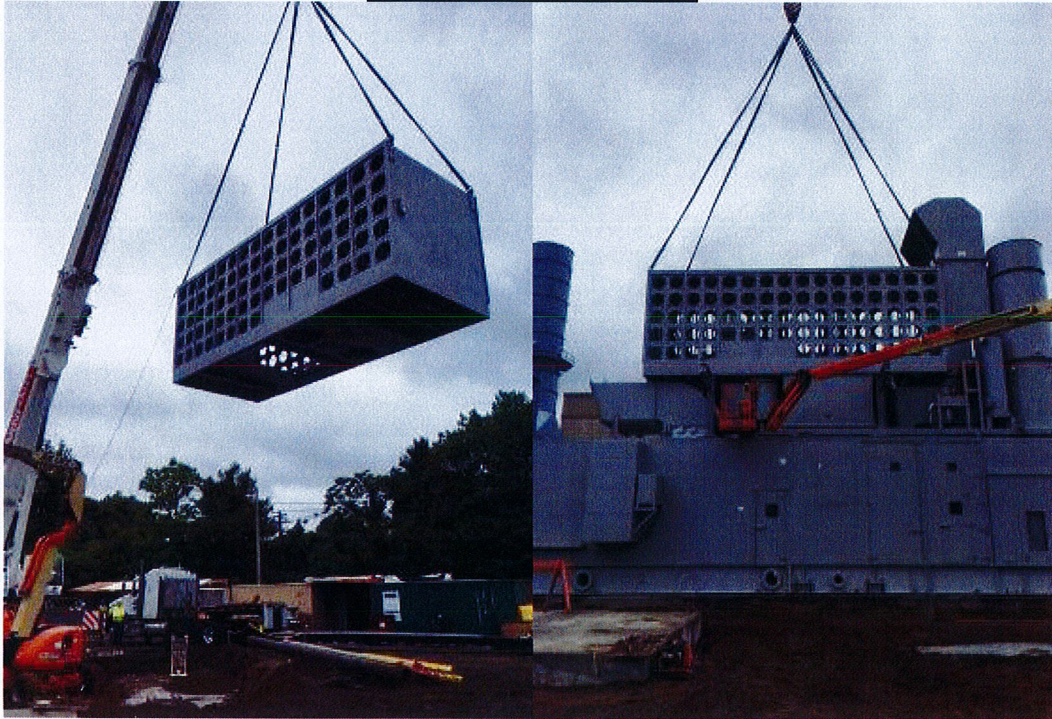
Filter house modules – Tap plenum to coil module mounting nut threads



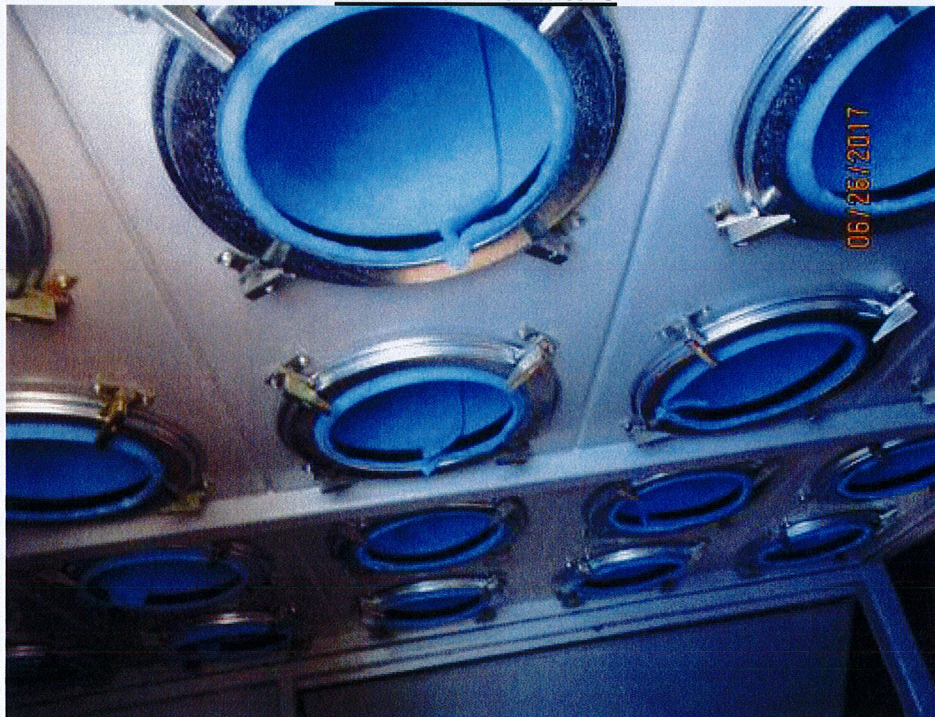
Set inlet plenum & both coil modules unit 6



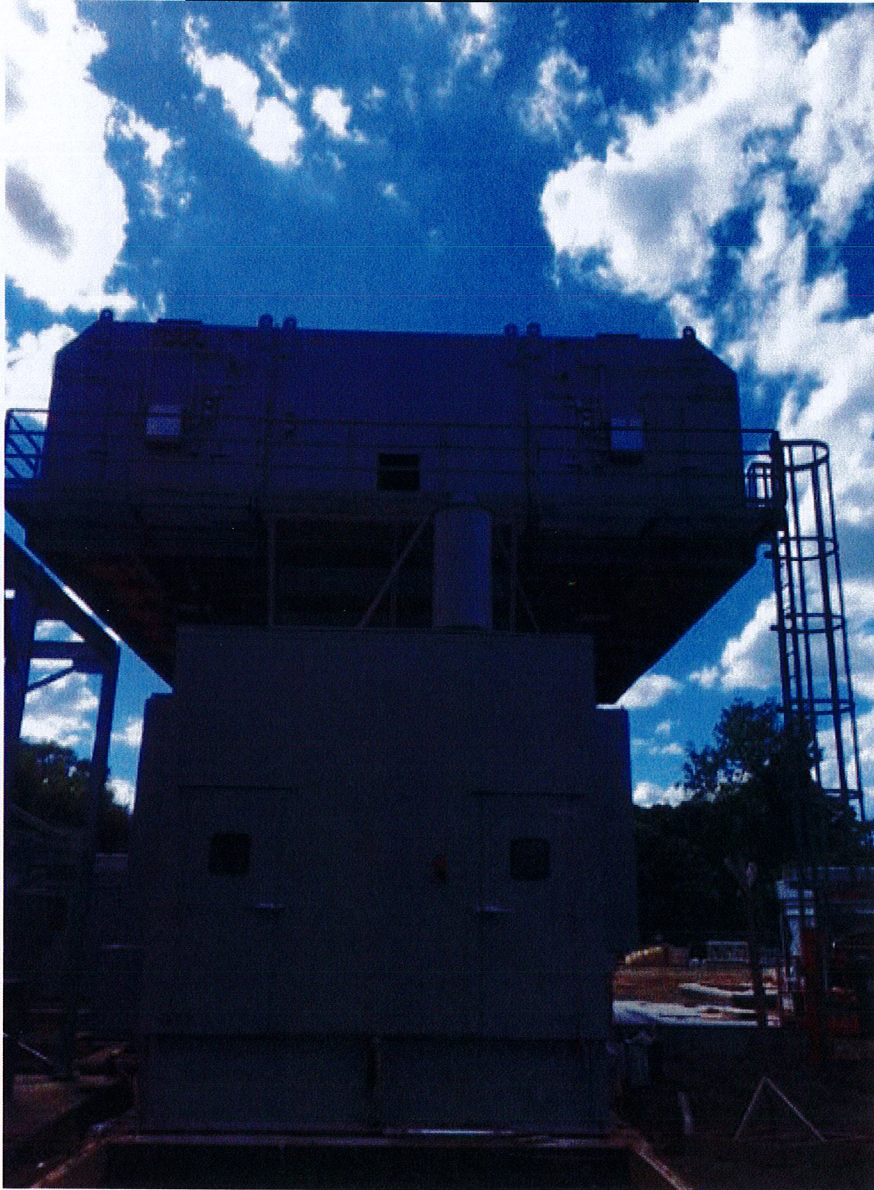
Set inlet plenum. Unit 7



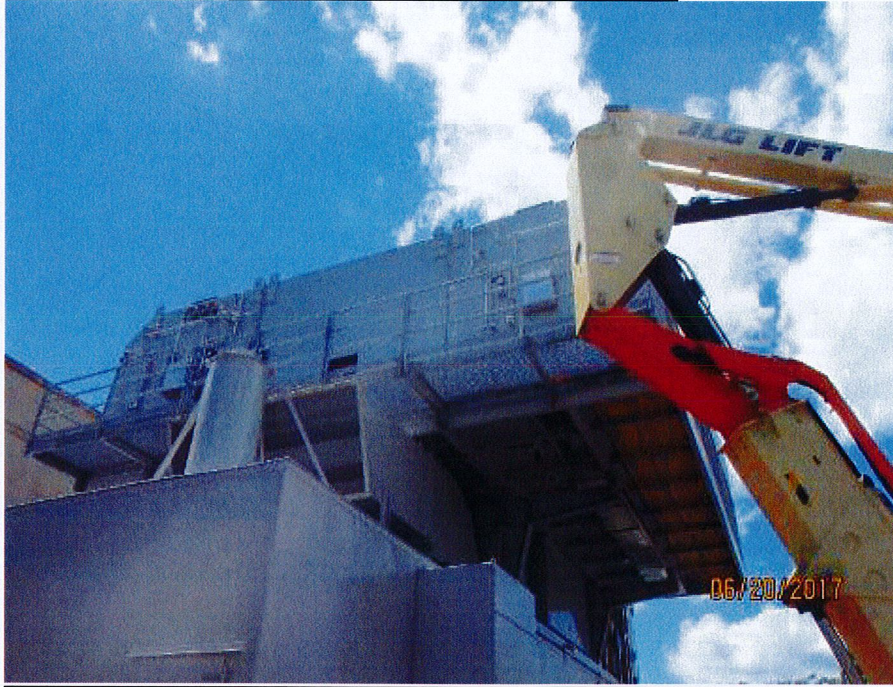
Installed final filters



Unit 6 filter house platform & ladder



Set catwalks on the filter house



Modify & installed filter house platform ladder.



Poured concrete on small pads for unit 6 and south side generator door



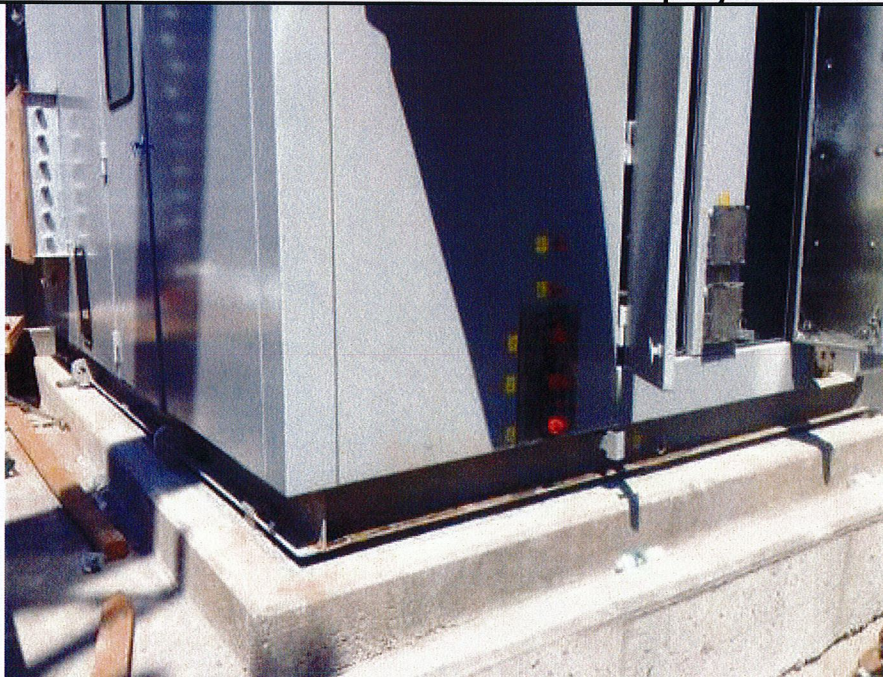
Transport Auxiliary skids from laydown yard & set on foundations.



Set LP water injection skid unit 7



Aux skid Bush concrete drill anchor bolt holes & epoxy studs. Final set



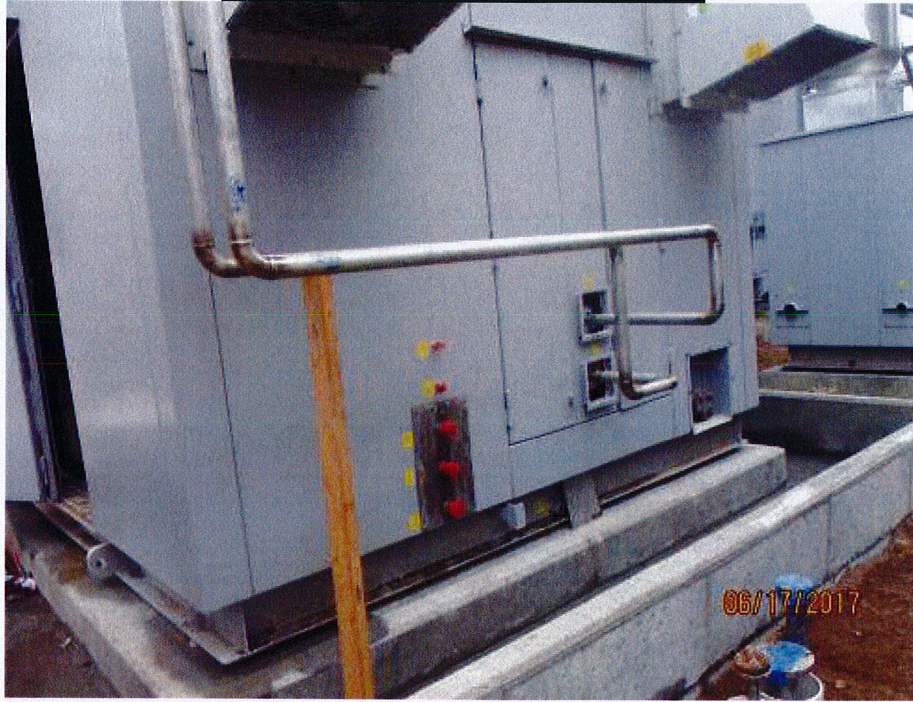
Fin Fan skid #7 mounted



Installed CO2 skid on unit 6 and 7



Lube oil installed on units 6 and 7



Waste water sump placed



Electrician crew connecting waste water tank to sump pump



Waste water storage tank installed



Inlet ducts assembly arrived to site



Unloaded and staged 2 SCR modules & 1 DG Duct



Setting forms for the 480V switchgear pad



Buss cable tray system erected at GSU



Installed buss cable system on the south side of unit #6



Buss cable frame on the South wall of exiting CTGs



Electricians erecting cable tray racks



O&G Sound wall erected steel from column #1 thru #11



Poured concrete for grade beam at GSU



Poured concrete for grade beam at GSU



Structural frame for CTG sound wall erected.



Completed erection and bolt up the Buss cable support system from the GSU



Placing underground piping from header to riser sets for Unit # 7



Vaults have been partially buried.



Backfill on the North side of units #4 and #5 has restored and compacted



Unit # 7 has been gillsulated and covered ready for backfill.



Backfilling between 6 and 7



Backfilled the area South of Unit 7



Magnetic particle markings on all welds tested, no rejections



Magnetic particle markings on all welds tested, no rejections



4" feed line from Main header feed and to supply line to the turbine



Unit 6 underground 4" supply line being encapsulated by Gilsulate



Backfill on unit 6, 4" supply line



All supports coated as required



Set PDC on foundation



Set PDC on foundation



Pulling cable from interrupter switch to Aux transformers



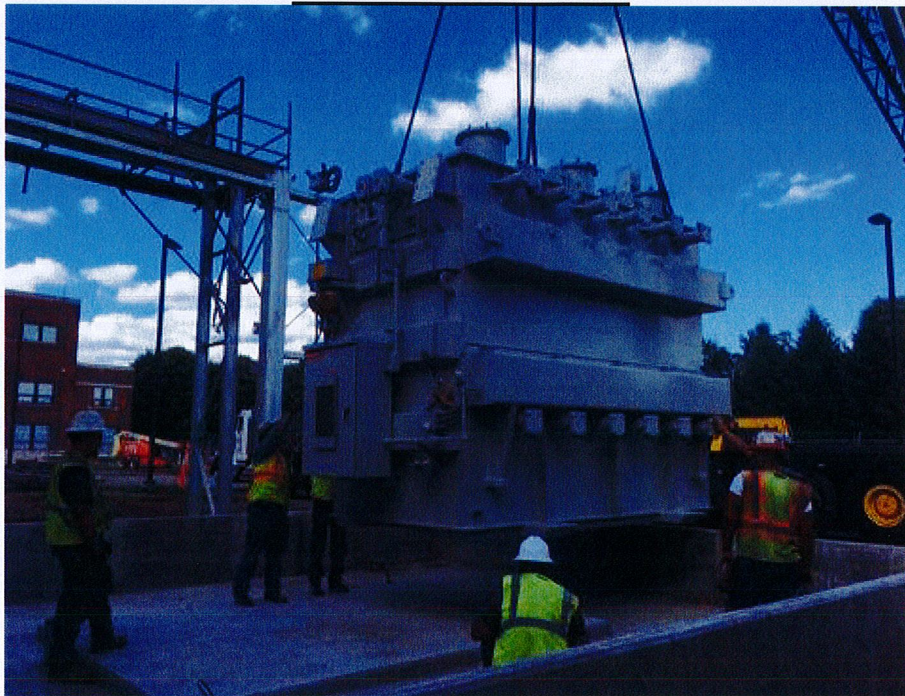
Aux transformers arrived on site



Aux Transformers set on foundation



Set GSU on foundation.



GSU Rough Set on Foundation



GSU dress out crew lubing transformer #7



Panoramic photo June progress

