# Exhibit 3

# Attachment WHS-1

Eversource Generation

Unit Outage Lists

**Eversource Hydro Outage Matrix - 2017**

| Item | Site | Unit Number | Date & Time OFF line | Date & Time ON line | Outage Duration - Hours | Outage Duration - Days | Lost Generation (Y or N) | Outage Type | Cause of Outage |
|---|---|---|---|---|---|---|---|---|---|
| A | Amoskeag | S | 12/6/17 8:09 | 12/6/17 10:23 | **2.23** | **0.09** | Y | EMO | Required Black Start Testing |
| A | Amoskeag | 1 | 1/31/17 15:25 | 2/1/17 13:25 | **22.00** | **0.92** | N | Trip | F39 coil on field contactor found burnt |
| B | Amoskeag | 1 | 2/6/17 7:19 | 2/10/17 11:18 | **99.98** | **4.17** | N | AI | AI |
| C | Amoskeag | 1 | 3/2/17 15:09 | 3/2/17 16:43 | **1.57** | **0.07** | Y | Trip | Attempt to repair DC fault, HECM caused normal shutdown when he moved the wire. |
| D | Amoskeag | 1 | 10/26/17 8:00 | 11/1/17 17:08 | **153.13** | **6.38** | Y | EMO | Broken Gate Arm |
| A | Amoskeag | 2 | 2/8/17 11:07 | 2/8/17 11:11 | **0.07** | **0.00** | Y | Trip | Electrician working in control cabinet hit relay #94 with his foot, caused unit to trip. |
| A | Amoskeag | 3 | 8/12/17 17:38 | 8/14/17 19:32 | **49.90** | **2.08** | Y | Trip | 80 relay coil burnt, loss of DC control power. |
| A | Hooksett | 1 | 2/28/17 9:42 | 3/1/17 9:48 | **24.10** | **1.00** | Y | EMO | High, high tailrace water, ESCC shutdown unit. |
| B | Hooksett | 1 | 4/1/17 17:36 | 4/2/17 10:20 | **16.73** | **0.70** | Y | T/D | Line fault on #335 line. |
| C | Hooksett | 1 | 4/7/17 8:36 | 4/7/17 10:36 | **2.00** | **0.08** | Y | EMO | Exciter brushes worn. |
| D | Hooksett | 1 | 4/22/17 8:15 | 4/22/17 16:35 | **8.33** | **0.35** | Y | T/D | Scheduled outage for transmission. |
| E | Hooksett | 1 | 5/8/17 14:20 | 5/8/17 15:59 | **1.65** | **0.07** | Y | T/D | Line fault on #335 line. |
| F | Hooksett | 1 | 7/27/17 8:47 | 7/27/17 8:55 | **0.13** | **0.01** | Y | T/D | Line fault at Rimmon Street Substation |
| G | Hooksett | 1 | 8/15/17 14:56 | 8/15/17 15:14 | **0.30** | **0.01** | Y | T/D | Transmission - 335 R1 recloser opened. |
| H | Hooksett | 1 | 10/31/17 6:40 | 11/5/17 8:21 | **121.68** | **5.07** | Y | EMO | Tailrace elevation high, caused generation to drop. |
| I | Hooksett | 1 | 11/6/17 19:37 | 11/7/17 7:12 | **11.58** | **0.48** | Y | EMO | Lost communication with RTU. Could not control generator. |
| A | Jackman | 1 | 4/6/17 13:25 | 4/10/17 14:24 | **96.98** | **4.04** | N | EMO | Cable from upper exciter collector ring to the rotor heated up enough to liquefy the solder in the connection causing solder to spray on top and around the exciter. |
| B | Jackman | 1 | 4/25/17 6:00 | 4/25/17 8:00 | **2.00** | **0.08** | Y | EMO | Annunciator panel had #7 (over-speed) and #24 (all drops) drop without unit control stop. |
| C | Jackman | 1 | 5/19/17 21:57 | 5/20/17 10:50 | **12.88** | **0.54** | Y | Trip | Unit tripped off-line from governor low oil pressure. Coil burnt out in governor oil pump motor starter. |
| D | Jackman | 1 | 6/1/17 11:40 | 6/1/17 11:46 | **0.10** | **0.00** | Y | Trip | Unit tripped due to low water flow to the lower guide bearing. |

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| Item | Site | Unit Number | Date & Time OFF line | Date & Time ON line | Outage Duration - Hours | Outage Duration - Days | Lost Generation (Y or N) | Outage Type | Cause of Outage |
|---|---|---|---|---|---|---|---|---|---|
| E | Jackman | 1 | 7/26/17 8:40 | 7/26/17 9:30 | **0.83** | **0.03** | Y | Trip | Lower bearing cooling water alarm. |
| F | Jackman | 1 | 9/14/17 8:44 | 9/14/17 13:15 | **4.52** | **0.19** | N | Trip | Connection between generator rotor coils #13 & 14 failed. |
| G | Jackman | 1 | 10/23/17 9:15 | 12/21/17 18:40 | **1425.42** | **59.39** | N | EMO / AI | Planned outage for divestiture & substation work, Completed AI |
| A | Garvins | S | 8/21/17 7:00 | 9/13/17 7:00 | **552.00** | **23.00** | | EMO | Planned station outage to complete canal concrete repairs. |
| A | Garvins | 1 | 4/1/17 5:47 | 4/1/17 10:39 | **4.87** | **0.20** | Y | T/D | Line fault on #317 line. |
| B | Garvins | 1 | 10/30/17 1:15 | 10/30/17 2:51 | **1.60** | **0.07** | Y | T/D | Line fault on #396 line. |
| C | Garvins | 1 | 11/7/17 7:12 | 11/7/17 16:00 | **8.80** | **0.37** | Y | Trip | Burnt trip coil |
| D | Garvins | 1 | 11/13/17 10:38 | 12/31/17 22:59 | **1164.35** | **48.51** | Y | Trip | TB 21 Transformer Failure |
| A | Garvins | 2 | 3/28/17 6:50 | 3/28/17 10:30 | **3.67** | **0.15** | Y | Trip | Automation / PLC control backed load down too far, unit tripped. |
| A | Garvins | 3 | 2/3/17 14:09 | 2/3/17 15:50 | **1.68** | **0.07** | N | Trip | Failed to start via pond control. Possible agastat issue in 65S3 circuit. |
| B | Garvins | 3 | 2/12/17 2:19 | 2/12/17 10:50 | **8.52** | **0.35** | N | Trip | Failed to start via pond control. Voltage regulating equipment. |
| C | Garvins | 3 | 2/25/17 9:00 | 2/25/17 9:17 | **0.28** | **0.01** | Y | Trip | Failed to start via pond control. Voltage regulating equipment. |
| D | Garvins | 3 | 4/1/17 5:48 | 4/1/17 10:45 | **4.95** | **0.21** | Y | Trip | Failed to phase on-line when unit 1 tripped due to line fault. |
| E | Garvins | 3 | 5/2/17 22:26 | 5/2/17 23:09 | **0.72** | **0.03** | Y | Trip | Ann. Drop - High oil in lower bearing (oil tank). |
| F | Garvins | 3 | 7/10/17 13:30 | 7/10/17 14:15 | **0.75** | **0.03** | Y | Trip | Low oil in lower bearing (oil tank), oil pump did not start, caused low oil Ann. Drop. |
| G | Garvins | 3 | 10/28/17 8:52 | 10/28/17 9:52 | **1.00** | **0.04** | Y | Trip | Operator error. |
| H | Garvins | 3 | 11/28/17 7:59 | 11/28/17 10:50 | **2.85** | **0.12** | N | EMO | Needed to disconnect TB21 from live bus. |
| I | Garvins | 3 | 12/5/17 8:00 | 12/31/17 23:59 | **639.98** | **26.67** | Y | EMO | Exciter Failure |
| A | Garvins | 4 | 8/4/17 11:57 | 8/4/17 12:27 | **0.50** | **0.02** | Y | Trip | Lower guide bearing oil low. |
| B | Garvins | 4 | 10/30/17 1:15 | 10/30/17 2:40 | **1.42** | **0.06** | Y | T/D | Line fault on #396 line. |
| C | Garvins | 4 | 11/28/17 7:59 | 11/28/17 10:50 | **2.85** | **0.12** | N | EMO | Needed to disconnect TB21 from live bus. |
| D | Garvins | 4 | 12/5/17 9:42 | 12/5/17 11:30 | **1.80** | **0.07** | Y | EMO | Safety Reasons, need to shut down G4 while divers were working behind the racks on G3. |

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|---|---|---|---|---|---|---|---|---|---|
| E | Garvins | 4 | 12/5/17 13:01 | 12/5/17 13:03 | **0.03** | **0.00** | Y | Trip | Human error, accidently operated DC 8 switch for G4 instead of G3. |
| F | Garvins | 4 | 12/19/17 14:45 | 12/19/17 15:41 | **0.93** | **0.04** | N | Trip | Testing trip circuits |
| G | Garvins | 4 | 12/30/17 3:12 | 12/30/17 8:16 | **5.07** | **0.21** | Y | Trip | overvoltage relay |
| A | Ayers Island | S | Various | Various | | | Y | EMO | All units were shut down to perform dredging of the intake |
| A | Ayers Island | 1 | 2/23/17 8:30 | 3/2/17 14:35 | **174.08** | **7.25** | Y | EMO / AI | Brushes arching and sparking on collector rings. Pitting and gouging on rings, excessive brush wear. |
| B | Ayers Island | 1 | 7/20/17 2:46 | 7/20/17 7:31 | **4.75** | **0.20** | Y | T/D | Drop 12 Overspeed |
| C | Ayers | 1 | 11/2/17 7:55 | 11/2/17 8:10 | **0.25** | **0.01** | Y | EMO | Worn collector Brush |
| D | Ayers Island | 1 | 12/25/17 20:25 | 12/25/17 22:25 | **2.00** | **0.08** | N | Trip | Malfunctioning Governor |
| E | Ayers Island | 1 | 12/30/17 18:13 | 12/31/17 13:25 | **19.20** | **0.80** | N | Trip | Malfunctioning Governor |
| A | Ayers Island | 2 | 5/22/17 19:48 | 5/22/17 20:40 | **0.87** | **0.04** | N | EMO | Change worn exciter brushes. |
| B | Ayers Island | 2 | 9/13/17 7:41 | 9/21/17 18:15 | **202.57** | **8.44** | | AI | Annual Inspection |
| A | Ayers Island | 3 | 4/1/17 6:08 | 4/1/17 7:30 | **1.37** | **0.06** | Y | Trip | Synchronizer not working, lock out after incomplete start sequence. |
| B | Ayers Island | 3 | 4/24/17 8:11 | 4/24/17 9:05 | **0.90** | **0.04** | Y | EMO | Collector ring brushes worn |
| C | Ayers Island | 3 | 9/27/17 7:40 | 10/6/17 13:55 | **222.25** | **9.26** | | AI | Annual Inspection |
| A | Eastman | 1 | 3/5/17 7:26 | 3/5/17 8:35 | **1.15** | **0.05** | Y | T/D | Transmission Line Disturbance |
| B | Eastman | 1 | 8/24/17 7:24 | 8/24/17 15:31 | **8.12** | **0.34** | | EMO | Relay Testing |
| A | Eastman | 2 | 11/3/17 17:08 | 11/3/17 17:22 | **0.23** | **0.01** | | T/D | Line Disturbance |
| B | Eastman | 2 | 8/7/17 8:50 | 8/24/17 15:26 | **414.60** | **17.28** | | AI | Annual Inspection |
| A | White Lake | 1 | 11/29/17 11:45 | 11/29/17 11:56 | **0.18** | **0.01** | N | EMO | Black Start Testing |
| A | Smith | 1 | 9/11/17 7:26 | 9/22/17 18:51 | **275.42** | **11.48** | N | AI | AI |
| A | Gorham | S | 7/17/17 7:30 | 9/20/17 16:00 | **1568.50** | **65.35** | N | AI/EMO | AI and GSU replacement |
| A | Gorham | 1 | 1/19/17 9:59 | 1/19/17 11:01 | **1.03** | **0.04** | Y | Trip | Made setpoint change in PLC, caused unit to trip. |
| B | Gorham | 1 | 5/20/17 2:34 | 5/22/17 12:08 | **57.57** | **2.40** | Y | Trip | 34 boards down on dam, river flows dropped, pond control shut down unit. |
| C | Gorham | 1 | 7/4/17 20:19 | 7/5/17 7:20 | **11.02** | **0.46** | Y | Trip | Loose nitrogen fitting at stilling pipe. |

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|---|---|---|---|---|---|---|---|---|---|
| D | Gorham | 1 | 10/30/17 3:49 | 11/1/17 13:03 | **57.23** | **2.38** | Y | Trip | 351 & 352 line operation. |
| A | Gorham | 2 | 5/20/17 8:41 | 5/22/17 11:10 | **50.48** | **2.10** | Y | Trip | 34 boards down on dam, river flows dropped, pond control shut down unit. |
| B | Gorham | 2 | 7/4/17 20:15 | 7/5/17 7:27 | **11.20** | **0.47** | Y | Trip | Loose nitrogen fitting at stilling pipe. |
| C | Gorham | 2 | 10/25/17 7:16 | 10/25/17 8:45 | **1.48** | **0.06** | Y | Trip | Thrust oil switch out of adjustment. |
| D | Gorham | 2 | 10/30/17 3:49 | 11/1/17 12:52 | **57.05** | **2.38** | Y | Trip | 351 & 352 line operation. |
| A | Gorham | 3 | 5/20/17 20:59 | 5/22/17 10:25 | **37.43** | **1.56** | Y | Trip | 34 boards down on dam, river flows dropped, pond control shut down unit. |
| B | Gorham | 3 | 7/4/17 20:21 | 7/4/17 22:06 | **1.75** | **0.07** | Y | Trip | Loose nitrogen fitting at stilling pipe. |
| C | Gorham | 3 | 10/30/17 3:49 | 10/31/17 10:20 | **30.52** | **1.27** | Y | Trip | 351 & 352 line operation. |
| A | Gorham | 4 | 5/20/17 20:59 | 5/22/17 10:35 | **37.60** | **1.57** | Y | Trip | 34 boards down on dam, river flows dropped, pond control shut down unit. |
| B | Gorham | 4 | 6/12/17 15:46 | 6/13/17 13:27 | **21.68** | **0.90** | Y | Trip | HPU filter housing cracked, HPU low oil pressure. |
| C | Gorham | 4 | 7/4/17 20:23 | 7/4/17 22:22 | **1.98** | **0.08** | Y | Trip | Loose nitrogen fitting at stilling pipe. |
| D | Gorham | 4 | 10/30/17 3:49 | 10/31/17 10:33 | **30.73** | **1.28** | Y | Trip | 351 & 352 line operation. |
| A | Canaan | 1 | 1/9/17 9:32 | 1/9/17 14:18 | **4.77** | **0.20** | Y | EMO | Replaced Decs with original had loaner from Eaton. |
| B | Canaan | 1 | 3/27/17 7:03 | 3/27/17 14:22 | **7.32** | **0.30** | Y | EMO | Unload New GSU |
| C | Canaan | 1 | 6/2/17 9:52 | 6/2/17 12:14 | **2.37** | **0.10** | Y | Trip | Overspeed relay trip. |
| D | Canaan | 1 | 6/20/17 9:52 | 6/20/17 11:32 | **1.67** | **0.07** | Y | Trip | Overspeed relay trip. |
| E | Canaan | 1 | 6/20/17 15:35 | 6/20/17 16:23 | **0.80** | **0.03** | Y | Trip | Overspeed relay tripped 86G. |
| F | Canaan | 1 | 6/23/17 10:07 | 6/23/17 10:52 | **0.75** | **0.03** | Y | Trip | Overspeed relay trip. |
| G | Canaan | 1 | 6/27/17 8:06 | 6/27/17 15:19 | **7.22** | **0.30** | Y | EMO | Replaced overspeed pick-up with new style. |
| H | Canaan | 1 | 6/28/17 11:13 | 6/28/17 12:38 | **1.42** | **0.06** | Y | EMO | Divers repaired broken waste gate chain. |
| I | Canaan | 1 | 7/11/17 9:55 | 7/11/17 10:39 | **0.73** | **0.03** | Y | Trip | Maintenance opened waste gate, pond elevation dropped, unit tripped. |
| J | Canaan | 1 | 7/17/17 17:04 | 7/17/17 21:10 | **4.10** | **0.17** | Y | T/D | 355 line operation. Bad weather / thunder-storms. |
| K | Canaan | 1 | 8/6/17 12:15 | 8/6/17 14:40 | **2.42** | **0.10** | Y | T/D | 355 line operation. |
| L | Canaan | 1 | 8/12/17 7:07 | 8/12/17 9:40 | **2.55** | **0.11** | Y | Trip | Lube oil pump issue. |

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|---|---|---|---|---|---|---|---|---|---|
| M | Canaan | 1 | 8/14/17 10:44 | 8/14/17 11:09 | **0.42** | **0.02** | Y | Trip | PLC Logic |
| N | Canaan | 1 | 10/30/17 3:10 | 10/30/17 19:41 | **16.52** | **0.69** | Y | T/D | 355 line operation. |
| O | Canaan | 1 | 11/7/17 23:54 | 11/8/17 10:40 | **10.77** | **0.45** | Y | Trip | Strainer basket dirty, low lube oil flow, valve 3/4 closed. |
| P | Canaan | 1 | 11/22/17 11:57 | 11/22/17 12:24 | **0.45** | **0.02** | Y | EMO | Arc-Flash data needed. |
| Q | Canaan | 1 | 12/5/17 12:06 | 12/5/17 16:36 | **4.50** | **0.19** | Y | EMO | PLC hardware trouble |
| A | Lost Nation | 1 | 1/10/17 6:03 | 1/10/17 7:50 | **1.78** | **0.07** | N | Trip | High Vibration. |
| B | Lost Nation | 1 | 2/1/17 9:11 | 2/1/17 11:06 | **1.92** | **0.08** | N | EMO | Replaced 2 defective batteries. |
| C | Lost Nation | 1 | 2/23/17 8:00 | 2/23/17 20:02 | **12.03** | **0.50** | N | EMO | Replace inverter and do black start testing. |
| D | Lost Nation | 1 | 3/7/17 8:38 | 3/7/17 11:49 | **3.18** | **0.13** | N | EMO | Taken OOS to perform black start testing. |
| E | Lost Nation | 1 | 3/15/17 15:00 | 3/17/17 14:55 | **47.92** | **2.00** | N | Trip | High Vibration. |
| F | Lost Nation | 1 | 6/19/17 7:00 | 6/22/17 18:18 | **83.30** | **3.47** | N | EMO | Fuel Tank Inspections |
| G | Lost Nation | 1 | 11/28/17 18:10 | 11/28/17 23:30 | **5.33** | **0.22** | N | Trip | Unknown |
| H | Lost Nation | 1 | 12/3/17 1:41 | 12/3/17 12:44 | **11.05** | **0.46** | N | Trip | Unknown |
| I | Lost Nation | 1 | 12/27/17 5:42 | 12/27/17 20:13 | **14.52** | **0.60** | N | Trip | Noise on feed back circuit causing fuel pump alarm. |

**Merrimack 1**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 02/09/2017 20:26 | 02/16/2017 15:03 | SLAG TAP PLUGGAGE | 162.62 |
| B | 07/11/2017 09:44 | 07/11/2017 11:49 | FORCED DRAFT FAN CONTROL | 2.08 |
| C | 07/12/2017 14:24 | 07/14/2017 10:25 | GENERATOR STATOR EXCITER | 44.02 |
| D | 10/02/2017 16:30 | 10/03/2017 17:23 | TURBINE CONTROL VALVES | 24.88 |
| E | 10/17/2017 07:00 | 10/23/2017 07:00 | EARLY START TO PLANNED OUTAGE | 144.00 |
| F | 10/23/2017 07:00 | 11/20/2017 07:00 | PLANNED OUTAGE | 673.00 |
| G | 11/20/2017 07:00 | 11/30/2017 07:17 | ATTEMPERATOR SPRAY NOZZLES -EXTENDED PO PERIOD | 240.28 |
| H | 12/11/2017 06:00 | 12/11/2017 11:40 | BOILER WATER CONDITION -DELAYED START | 5.67 |

**Merrimack 2**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 01/24/2017 16:23 | 01/26/2017 15:33 | BOILER TUBE LEAK | 47.17 |
| B | 02/27/2017 07:09 | 03/03/2017 18:20 | FORCED DRAFT FAN REPAIR | 107.18 |
| C | 05/15/2017 07:00 | 05/25/2017 15:40 | FURNACE WATERWALL TUBE LEAK | 248.67 |
| D | 10/20/2017 07:00 | 10/23/2017 07:00 | EARLY START TO PLANNED OUTAGE | 72.00 |
| E | 10/23/2017 07:00 | 10/29/2017 01:30 | PLANNED OUTAGE | 138.50 |
| F | 11/11/2017 08:00 | 11/11/2017 13:37 | FLASH TANK REPAIR | 5.62 |
| G | 11/13/2017 10:35 | 11/21/2017 15:38 | MAIN BOILER FEED PUMP VALVE | 197.05 |

**Merrimack CT 1**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 01/25/2017 09:15 | 01/25/2017 09:40 | UPDATE SOFTWARE PROGRAM | 0.42 |
| B | 10/25/2017 07:53 | 10/25/2017 14:59 | MAIN TRANSFORMER MAINTENANCE | 7.10 |
| C | 10/27/2017 13:47 | 10/27/2017 14:32 | PROTECTION DEVICES - TRIP | 0.75 |
| D | 11/06/2017 07:59 | 11/08/2017 16:20 | PLANNED ANNUAL INSPECTION | 56.35 |
| E | 11/08/2017 19:14 | 11/10/2017 15:43 | EMERGENCY GENERATOR TRIP DEVICES | 44.48 |
| F | 12/18/2017 10:34 | 12/18/2017 14:46 | VIBRATION MONITORING SYSTEM | 4.20 |

**Merrimack CT 2**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 10/25/2017 07:53 | 10/25/2017 14:59 | MAIN TRANSFORMER MAINTENANCE | 7.10 |
| B | 10/27/2017 13:47 | 10/27/2017 14:32 | PROTECTION DEVICES - TRIP | 0.75 |
| C | 11/08/2017 07:00 | 11/10/2017 15:43 | PLANNED ANNUAL INSPECTION | 56.72 |

**Newington 1**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 03/22/2017 08:02 | 03/22/2017 16:58 | GENERATOR ROTOR - PLANNED CABLE MAINTENANCE | 8.93 |
| B | 05/02/2017 11:05 | 05/02/2017 20:00 | WATERWALL LEAKS | 8.92 |
| C | 05/03/2017 11:35 | 05/03/2017 20:30 | BOILER TUBE LEAKS | 8.92 |
| D | 05/18/2017 14:46 | 05/18/2017 18:45 | OPACITY MONITORING | 3.98 |
| E | 11/02/2017 11:19 | 11/03/2017 07:00 | MAIN TRANSFORMER | 19.68 |
| F | 11/12/2017 23:05 | 11/14/2017 06:00 | WATERWALL LEAKS | 30.92 |
| G | 11/14/2017 06:00 | 11/23/2017 06:55 | PLANNED OUTAGE | 216.92 |
| H | 12/28/2017 01:00 | 12/31/2017 01:17 | CONDENSER TUBE LEAKS | 72.28 |

**Schiller 4**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 01/06/2017 08:00 | 01/06/2017 12:48 | FUEL PROBLEMS - BURNER | 4.80 |
| B | 04/18/2017 11:30 | 04/19/2017 07:45 | FEEDWATER VALVE REPAIR | 20.25 |
| C | 05/01/2017 07:00 | 05/02/2017 19:55 | TRANSMISSION SYSTEM | 36.92 |
| D | 07/12/2017 14:00 | 07/12/2017 14:34 | LOW DRUM LEVEL - TRIP | 0.57 |
| E | 10/12/2017 17:05 | 10/12/2017 17:32 | TURBINE GOVERNING SYSTEM - TRIP | 0.45 |

**Schiller 5**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 01/01/2017 00:00 | 01/02/2017 09:05 | MAINTENANCE OUTAGE | 33.08 |
| B | 01/29/2017 14:12 | 01/31/2017 23:00 | INDUCED DRAFT FAN CONTROLS | 56.80 |
| C | 02/09/2017 16:50 | 02/11/2017 08:35 | INDUCED DRAFT FAN CONTROLS | 39.75 |
| D | 03/02/2017 13:45 | 03/02/2017 20:28 | FUEL - FEEDER PLUGGAGE | 6.72 |
| E | 03/15/2017 11:06 | 03/15/2017 19:52 | FUEL - CONVEYEOR REPAIR | 8.77 |
| F | 04/01/2017 12:35 | 04/23/2017 11:00 | PLANNED OUTAGE | 526.42 |
| G | 04/27/2017 15:15 | 05/04/2017 18:45 | BOILER TUBE LEAKS | 171.50 |
| H | 05/13/2017 21:26 | 05/14/2017 02:23 | FUEL - FEEDER TRIP | 4.95 |
| I | 05/17/2017 08:10 | 05/17/2017 13:55 | FUEL - FEEDER TRIP | 5.75 |
| J | 05/17/2017 13:55 | 05/17/2017 14:44 | BOILER - BED TEMPERATURES | 0.82 |
| K | 05/31/2017 01:40 | 05/31/2017 02:27 | FUEL - WOOD PLUGGAGE | 0.78 |
| L | 05/31/2017 04:55 | 05/31/2017 06:58 | DUCT BURNER | 2.05 |
| M | 07/14/2017 07:17 | 07/14/2017 08:14 | BOILER - DRUM LEVEL | 0.95 |
| N | 08/01/2017 02:10 | 08/01/2017 02:36 | LOSS OF FEEDERS/FANS | 0.43 |
| O | 09/03/2017 00:47 | 09/13/2017 23:43 | BOILER RELIABILITY OUTAGE | 262.93 |
| P | 09/16/2017 09:10 | 09/23/2017 23:56 | IN-BED TUBE LEAKS | 182.77 |
| Q | 09/26/2017 21:59 | 09/26/2017 22:23 | STEAM TURBINE - LOW VACUUM TRIP | 0.40 |
| R | 09/29/2017 11:44 | 09/30/2017 03:30 | FUEL - FEEDER TRIP | 15.77 |
| S | 10/30/2017 12:20 | 10/30/2017 13:02 | BOILER TRIP | 0.70 |
| T | 11/24/2017 07:57 | 11/24/2017 10:28 | BOILER TRIP - FURNACE DRAFT | 2.52 |
| U | 12/09/2017 00:20 | 12/15/2017 20:03 | BOILER RELIABILITY OUTAGE | 163.72 |
| V | 12/28/2017 10:00 | 12/30/2017 19:30 | OPACITY | 57.50 |

**Schiller 6**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 01/08/2017 12:28 | 01/09/2017 20:35 | DEARATOR HEATER STEAM LEAK | 32.12 |
| B | 02/01/2017 04:57 | 02/01/2017 05:28 | BOILER TRIP | 0.52 |
| C | 05/04/2017 07:40 | 05/05/2017 12:00 | TRANSMISSION SYSTEM - PLANNED | 28.33 |
| D | 09/18/2017 00:01 | 10/13/2017 22:10 | PLANNED BOILER OUTAGE | 622.15 |

**Schiller CT 1**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 03/27/2017 05:00 | 08/30/2017 13:00 | MAJOR JET ENGINE OVERHAUL | 3,752.00 |
| B | 09/21/2017 08:30 | 09/21/2017 12:04 | MAINTENANCE - PLANNED | 3.57 |
| C | 11/28/2017 16:50 | 11/29/2017 08:30 | SOLENOID VALVE FAILURE | 15.67 |

**Wyman**

01/01/17 through 12/31/17

| OUTAGE | START | END | OUTAGE CAUSE DESCRIPTION | DURATION HOURS |
|---|---|---|---|---|
| A | 10/15/2017 0:00 | 11/01/2017 0:00 | Planned Outage Inspection | 408.00 |

# Exhibit 3 – WHS Testimony

# Attachment WHS-2

# Eversource Generation

# Unit Outage Reports

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-01

**Station/Unit**: Merrimack Station Unit 1

**Dates:** February 9 – February 16, 2017

**Duration:** 6.8 days

**Immediate Cause:** Furnace Floor Slag Tap Pluggage

**Discussion/Remedy:** The 1B Forced Draft Fan Motor Inboard Bearing temperature increased to 185 degrees Fahrenheit. The unit load was reduced to 60 MW in order to troubleshoot and unload the fan bearing. The furnace floor slag tap became plugged and the Unit load was subsequently brought back up to full load in order to attempt to clear the tap. The slag tap rodder failed, requiring a new hammer assembly, and making the rodder unavailable. Limestone was added to the cyclones in an attempt to soften the slag. Limestone injection was not sufficient to cause the slag to flow. The slag was removed and the slag rodder was repaired. The decision was made to take the Unit off line due to risk of overloading the furnace floor with slag.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-02

**Station/Unit**: Merrimack Station Unit 2

**Dates**: February 27 - March 3, 2017

**Duration:** 4.5 days

**Immediate Cause:** 2A Forced Draft Fan Cracked Housing

**Discussion/Remedy:** Unit 2 was removed from service due to several cracks in the housing of the 2A forced Draft fan. The cracks caused excessive vibration to the fan bearings and motor bearings forcing the unit off line. Upon inspection of the cone, it was determined that it needed to be replaced by a spare cone that was in inventory. In order to replace the cone, the fan bearings had to be removed, the motor had to be uncoupled from the fan and the inlet vanes had to be removed. The old cone had to be cut in half to remove it. The new cone comes in halves and had to be installed to precise tolerances so the fan blade would not come in contact with the cone. Once it was fitted up, the cone halves were welded into place. The bearings were re-installed and an alignment was performed once it was coupled up to the motor.

During the outage, the soot blowing drain line isolation drain valve was replaced at the condenser and a 20 foot section of soot bowing drain line on the 7-1/2 elevation south side Unit 2 was replaced.

In addition, a complete boiler inspection was performed, cyclones were inspected, and a cyclone tube leak and boiler tube leak were repaired. The heat tracing on the secondary super heater attemperator drain line was also repaired and replaced.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No.:** OR-2017-03

**Station/Unit:** Schiller Station Unit 5

**Dates:** April 27 - May 4, 2017

**Duration:** 7.1 days

**Immediate Cause:** In Bed Tube Leak

**Discussion / Remedy:** Unit 5 was online when a tube leak occurred. It was suspected to be in the in-bed section. The Unit was taken offline for inspection and subsequent repairs. The inspection revealed a tube that failed (erosion caused by abrasion of furnace sand bed material) which in turn had damaged three additional tubes. Damaged portions were removed and replaced.

Tuyeres were all vacuumed and cleaned, none needed replacement. Upon completion of repairs a successful hydro was completed.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-04

**Station/Unit**: Merrimack Station Unit 2

**Dates**: May 15 – May 25, 2017

**Duration:** 10.4 Days

**Immediate Cause:** 2G Cyclone Re-entry Throat Tube Leaks

**Discussion/Remedy:** Unit 2 was removed from service due to tube leaks on 2G-cyclone re-entry throat tubes 15R & 16R. These two boiler re-entry throat tubes are tubes that wrap around the barrel tubes and have very specific bends to them. In order to replace the re-entry throat tubes 15R & 16R, the left side re-entry throat panel needed to be removed. This involved installing staging in the boiler and wind box to the top of the re-entry throat (approximately 30 feet), removal of refractory with high pressure water blasting, removal of pin studs that hold the refractory in place, removal of round bar that seals the tubes, installing rigging to support re-entry throat panel, bend tubes 15R &16R to specification, and cutting out the slag tap tubes. Once the tubes 15R & 16 were replaced, pin studding needed to be done, and round bar was installed prior to hydro of the boiler to make sure all leaks were tested for the AI. After the hydro was complete, refractory was installed, rigging equipment removed and staging of the wind box and boiler were removed, wind box casing was welded back in and insulation and lagging was installed. Once all was complete, the Unit was turned back over to OPS and declared available.

While the Unit was out of service, the following additional work was also completed:

- Tightened the bottom fill valve flanges.
- Tightened 2nd point heater drain valve piping.
- Replaced bearings and repacked 2A GRF Inlet damper blade shafts.
- Replace the base on the 2D air heater drip return pump.
- Performed complete boiler inspection.
- Opened 2A & 2F cyclones for inspection.
- Opened 2G Cyclone to repair a tube leaks.

- Repaired boiler tube leaks 2F cyclone barrel tubes.
- Replaced tempering duct expansion joints.
- Replaced the gearbox and drive nut on the 200B HPSH Valve Motor Operator.
- Water blasted 2G re-entry throat tubes and barrel tubes.
- Vacuumed wind box, 4$^{th}$ floor GRF duct, GRF tempering ducts, economizer hoppers, SCR hoppers, and fly ash hoper rooms.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No.:** OR-2017-05

**Station/Unit:** Schiller Station Unit 5

**Dates:** September 3 - September 13, 2017

**Duration**: 11 days

**Immediate Cause:** Planned Maintenance Outage

**Discussion / Remedy:** Retubing of the air heater was scheduled, and cyclone cleaning and boiler inspections were performed.

One half of the air heater had been retubed in 2011. The 2017 spring outage inspection indicated that the second half of the air heater was in poor condition and required retubing. The spring inspection of the partition plate and tubes to pass confirmed trending data in recent years indicating this work will would be needed.

Two new anti vibration baffles and a new pass partition plate were installed and the original tubes in this second air heater section were replaced.

Boiler & Balance of Plant items included the following list of activities:

- Cyclones cleaning and inspection was performed on cyclones 1-6.
- Nondestructive Examination of the in bed boiler tubes
- Boiler filled and a successful hydro was performed.
- Tuyere cleaning and inspection was completed.
- Baghouse filter bag inspection and replacements completed.
- Condenser water boxes and tubes were cleaned.
- BOP oil changes were completed.
- ID fan internal inspection was completed.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No.:** OR-2017-06

**Station/Unit:** Schiller Station Unit 5

**Dates:** September 16 - September 23, 2017

**Duration:** 7.6 days

**Immediate Cause:** In Bed Tube Leak

**Discussion / Remedy:** A tube leak was suspected to be in the in-bed section. An inspection revealed a tube that failed and had damaged additional tubes. Damaged portions were removed and dutchmen installed and pad welding was preformed to complete repairs.

Tuyeres were all vacuumed and cleaned, none needed replacement.

Cyclone 1 was plugged. Cyclone cleaning and inspections were performed.

Upon completion of repairs, a successful hydro was completed.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-07

**Station/Unit**: Merrimack Station Unit 1

**Dates**: October 17 - October 23, 2017

**Duration**: 6 days

**Immediate Cause:** Early Start to Planned Outage

**Discussion/Remedy:** There were 2 main projects that needed to be completed that required both Unit 1 and Unit 2 to be unavailable. This work was done prior to the start of the Unit 1 Overhaul (to start October 23).

The blow down tank needed to be replaced which has several drain lines from both units connected to it. This required several drain lines to be prepped for cutting prior to removing the old tank. Once the preparation of the pipes was completed and the rigging in place to support all the piping when it was cut, the Unit was taken out of service to cut all drain lines and remove the old tank. Once the tank was removed, the old base was removed and a new base was installed prior to setting the new blow down tank in place. Several of the old valves were replaced and the drain lines were rewelded in place prior to black light testing of the new welds which all passed the inspection.

An additional task performed on Unit 1 was the fan coil replacement which required pre-outage work for rigging to be installed to remove and replace the old fan coils.

It was also decided to take advantage of the Blowdown tank replacement to water wash the Unit 1 boiler, super heater, vertical re-heater, primary super heater and economizer. This would allow staging to be installed in the boiler on the first day of the planned overhaul for inspection of all components during the overhaul.

Additional work completed during the outage includes:

- Cleaned strainer on 1A Condensate Pump.

- Changed out 1B Coal Feeder belt.
- Performed complete boiler inspection.
- Replaced the gearbox and drive nut on the 200B HPSH Valve Motor Operator.
- Removed Unit 1 O2 probes for boiler water wash.
- Water blasted Unit 1 boiler, super heater, vertical re-heater, primary super heater and economizer.
- Vacuumed economizer shelf, economizer hoppers, SCR inlet duct, SCR outlet duct prior to start of water wash.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-08

**Station/Unit**: Merrimack Station Unit 2

**Dates**: October 20 - October 23, 2017

**Duration**: 3.0 days

**Immediate Cause:** Early Start to Planned Outage

**Discussion/Remedy:** There were two main projects that needed to be completed that required both Unit 1 and Unit 2 to be unavailable. This work was done prior to the start of the Unit 1 Overhaul (to start October 23).

The blow down tank needed to be replaced which has several drain lines from both units connected to it. Unit 2 was taken out of service to cut all drain lines and remove the old tank. Once the tank and the old base were removed, a new base was installed prior to setting the new blow down tank in place. Several of the old valves were replaced and the drain lines were rewelded in place prior to black light testing of the new welds which all passed the inspection.

The other main job which required Unit 1 & Unit 2 to be off line was the Scrubber Inspection and repairs. Prior to entering the Scrubber vessel, the inlet duct had to be cleared of debris. Once that was complete, the FGD vessel was drained, bottom debris removed, and thorough inspections were performed. C & D recycle pumps were inspected and a new liner needed to be install in C recycle pump. The PAP system was inspected and a few repairs were needed. All the agitator blades were inspected and repaired, several of the blades were found to be worn and weld overlay was needed. All the recycle pump nozzles were inspected and found to be in good shape.

Additional work completed during the outage include:

- Performed complete boiler inspection.
- Replaced (4) metal expansion joints in the tempering duct.

- Water blasted Inlet duct to scrubber vessel.
- Drained and rinsed all the remaining material in the scrubber vessel.
- Vacuumed the economizer hoppers, GRF duct, Tempering duct.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No**.: OR-2017-09

**Station/Unit**: Merrimack Station Unit 2

**Dates**: November 13 - November 21, 2017

**Duration**: 8.2 days

**Immediate Cause:** Main Boiler Feed Pump Valve

**Discussion/Remedy:** On 11/13/17 at 03:36, during a Unit 2 shutdown the main boiler feed pump discharge valve was seized in the open position and was unable to operate. This valve being stuck in that position prevented Unit 2 from starting, which prompted Merrimack Station personnel to open the cover of the actuator. Upon inspection it was noted that the actuator was electrically operating however the drive nut that physically turns and drives the valve stem open and closed was stripped. At that point the actuator was removed and sent to the Millennium Power's shop for repair. The valve itself was then inspected and the stem and plug were found to be damaged, which caused the actuator to fail. The valve was rebuilt and actuator reinstalled and returned to service on 11/21/17.

NH GENERATION

# STEAM STATION OUTAGE REPORT

**PUC Outage Report No.:** OR-2017-10

**Station/Unit:** Schiller Station Unit 5

**Dates:** December 9 - December 15, 2017

**Duration**: 6.8 days

**Immediate Cause:** Planned Maintenance Outage

**Discussion / Remedy:** Cyclones 1 & 4 were found to be plugged. The boiler was staged for contractor work and the pluggage was removed.

Boiler & Balance of Plant items included the following list of activities.

- Inspection of the air heater was performed by CMS.
- Nondestructive Examination of the in bed tubes
- The critical path work for this overhaul was the inspection and cleaning associated with all six cyclones, along with the inspection, repair and/or replacement of in bed tubes.
- Completed in bed tube repairs.
- Boiler filled and a successful hydro was performed.
- Tuyere cleaning and inspection was completed.
- Cyclone 1-6 Cleaned and inspected.
- Baghouse filter bag inspection and replacements completed.
- Woodyard belts were inspected.
- Condenser water boxes and tubes were cleaned.

# NH GENERATION

## STEAM STATION OUTAGE REPORT

**PUC Outage Report No:** OR-2017-11

**Station/Unit:** Newington Station

**Dates:** December 28 – December 31, 2017

**Duration:** 3.0 days

**Immediate Cause:** Condenser Tube Leaks

**Discussion / Remedy:** The unit was preparing to phase on line for a scheduled phase from cold start conditions. Water chemistry indicated an incipient condenser tube leak. Circulating water was secured to the south side of the condenser and the condenste in this side was used to fil the north side in efforts to identify the leak source. Since chloride levels continued to climb (indications of a condenser tube leak), the north side circulating water was placed back in service and the south side was secured and drained. It was determined the condenser tube leak in the south side was significant and the cause of this major leak. The startup was ended and the unit declared unavailable. The condenser tube leak was identified, plugged and operations began restoring water chemistry.

Exhibit 3

Attachment WHS-3

# Eversource Steam Units'

# Availability
# and
# Performance

## EVERSOURCE Generating Steam Unit
## Equivalent Availability Factor (EAF)
**January 2017 through December 2017**

| | Merrimack Unit 1 | Merrimack Unit 2 | Newington Unit 1 | Schiller Unit 4 | Schiller Unit 5 | Schiller Unit 6 |
|---|---|---|---|---|---|---|
| January | 100.0 | 93.7 | 100.0 | 99.4 | 87.9 | 94.7 |
| February | 75.8 | 93.9 | 100.0 | 100.0 | 94.1 | 98.9 |
| March | 99.9 | 91.1 | 98.8 | 100.0 | 97.5 | 99.0 |
| April | 100.0 | 100.0 | 100.0 | 97.2 | 15.67 | 99.0 |
| May | 100.0 | 66.6 | 97.0 | 95.04 | 85.9 | 95.2 |
| June | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.0 |
| July | 93.8 | 100.0 | 100.0 | 99.9 | 98.8 | 99.0 |
| August | 100.0 | 100.0 | 100.0 | 100.0 | 99.9 | 99.0 |
| September | 100.0 | 100.0 | 100.0 | 100.0 | 35.9 | 56.09 |
| October | 49.21 | 71.71 | 100.0 | 99.9 | 99.9 | 57.71 |
| November | 2.32 | 76.4 | 62.9 | 100.0 | 99.7 | 99.0 |
| December | 98.6 | 98.8 | 90.2 | 100.0 | 70.27 | 99.0 |
| Annual | 85.0% | 90.6% | 95.7% | 99.3% | 82.1% | 91.3% |

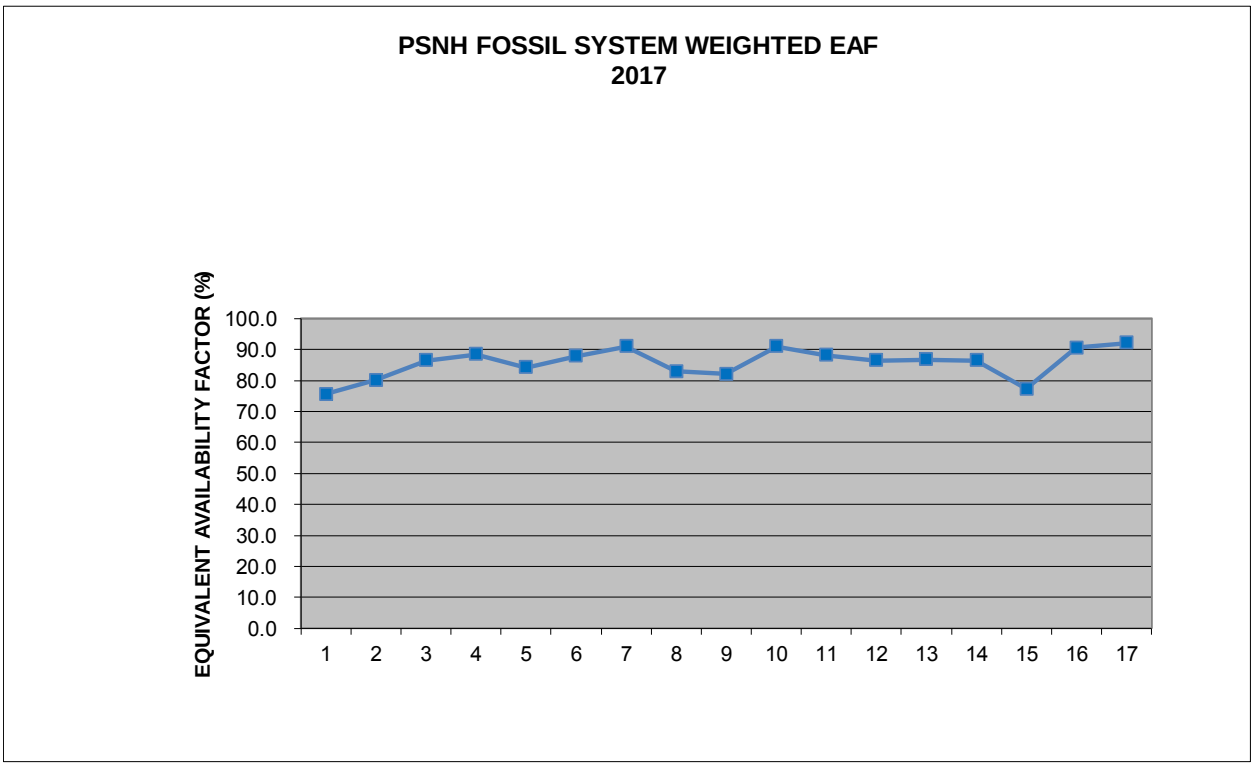
## Planned Maintenance Outages
**January 2017 through December 2017**

| Unit | Month(s) |
|---|---|
| Merrimack 1 | Oct-Nov |
| Merrimack 2 | Oct |
| Newington | N/A |
| Schiller 4 | May |
| Schiller 5 | Apr, Dec |
| Schiller 6 | May, Sep-Oct |

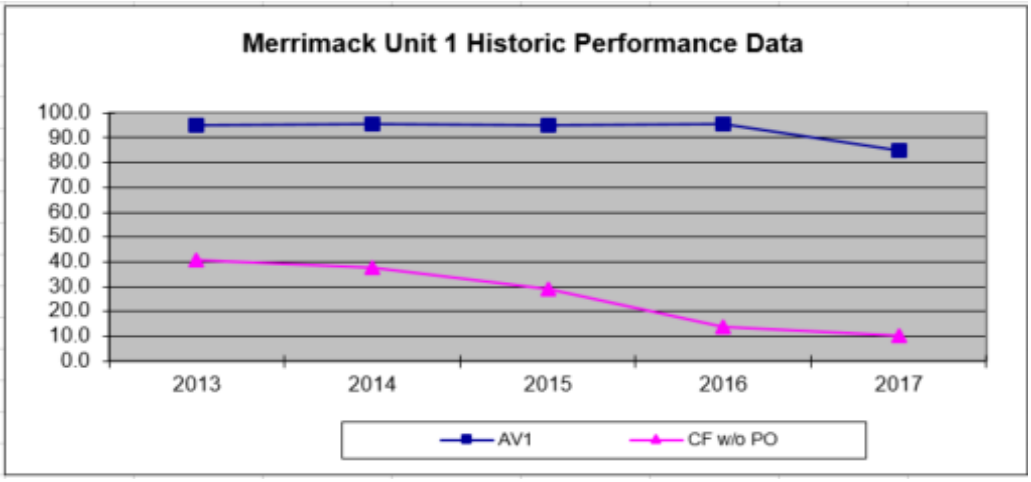
Equivalent Availability Factor 1 (EAF) is calculated as follows.

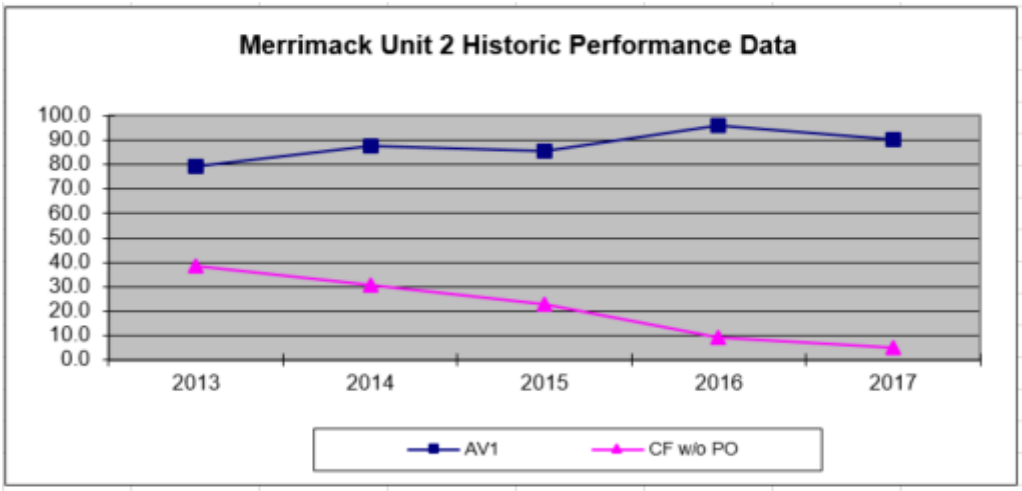
EAF = [(Available Hours – Equivalent Unit Derated Hours) * 100] ÷ Period Hours.

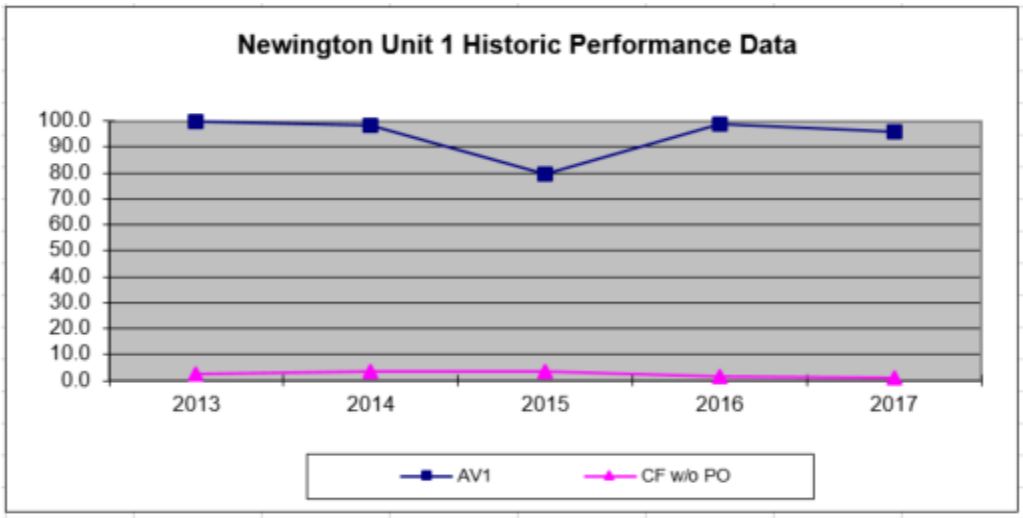
[1] The term equivalent availability is an industry standardized metric, and is used to represent the portion of hours that a unit is available to be dispatched at full capacity. Equivalent availability is recognized by the North American Electric Reliabiltiy Corporation (NERC) and other regional entities such as ISO-NE. The NERC approved equation to calculate the Equivalent Availability Factor is provided above.


PSNH FOSSIL SYSTEM WEIGHTED EAF
2017
EQUIVALENT AVAILABILITY FACTOR (%)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

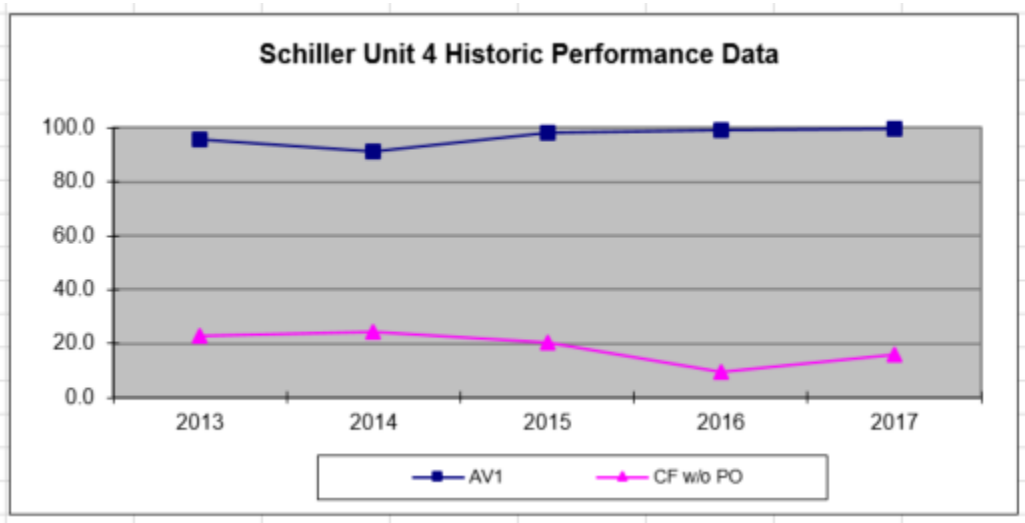
# Steam Unit Graphs – Planned Outages Omitted

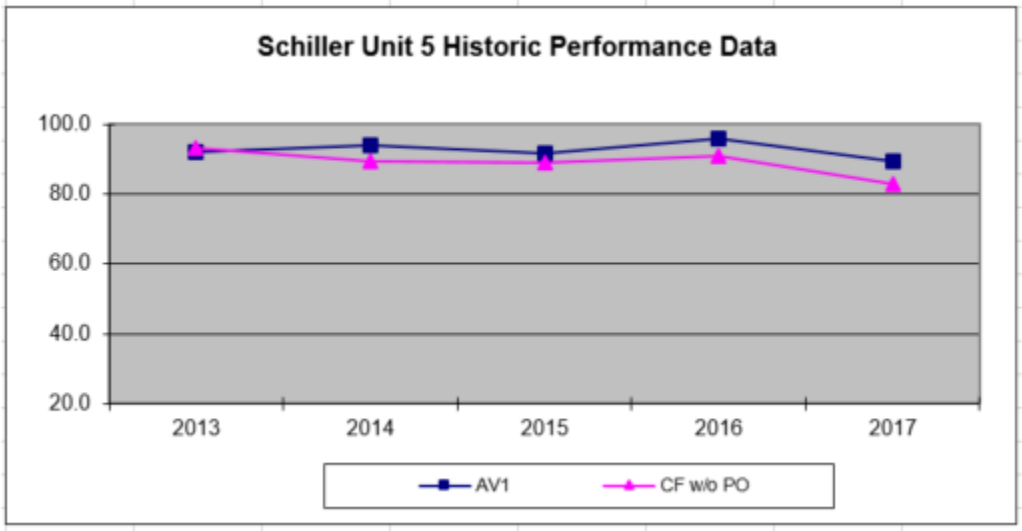


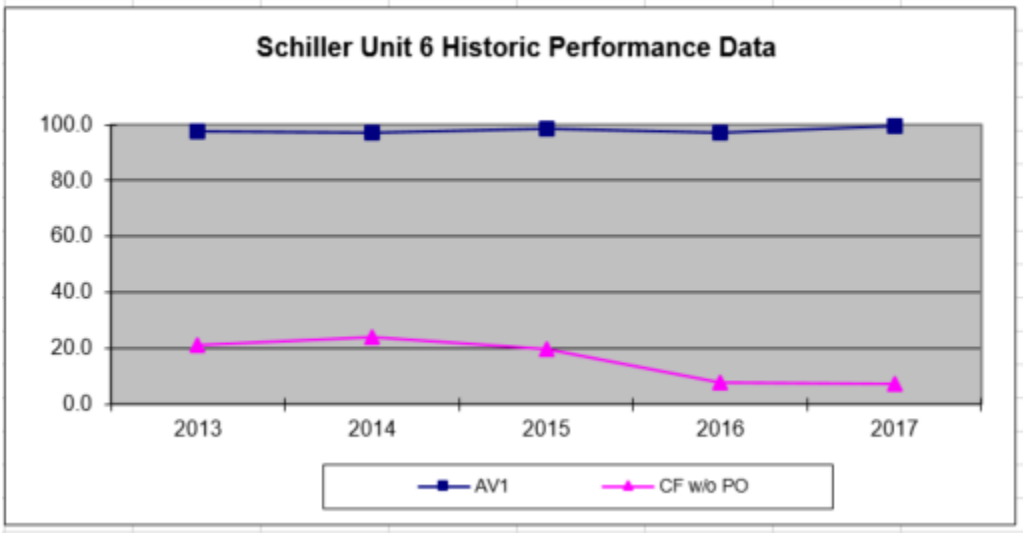



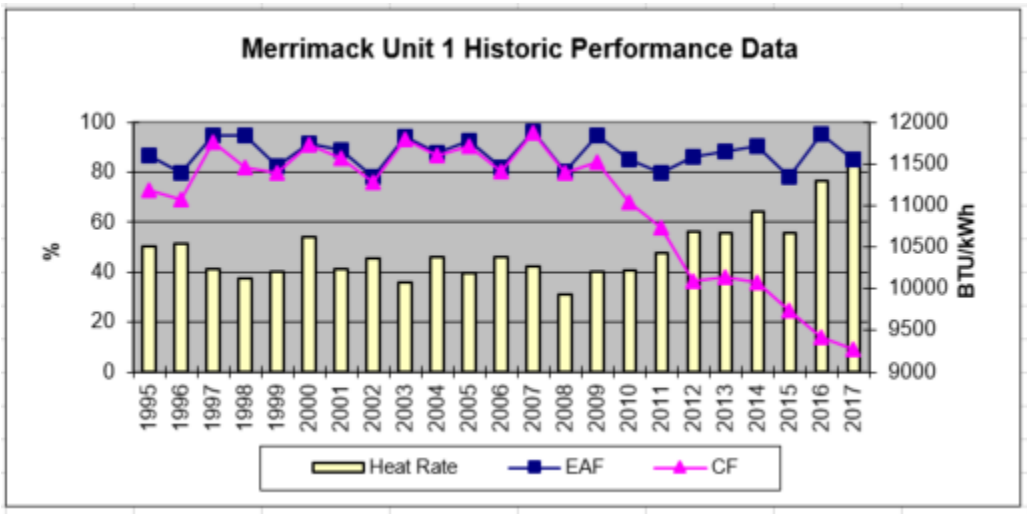
# Steam Unit Graphs – Planned Outages Omitted

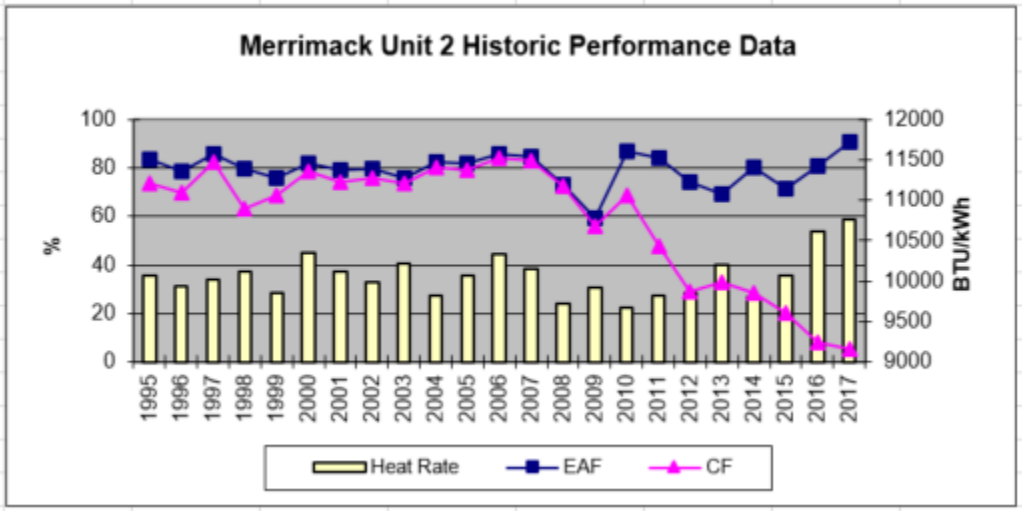


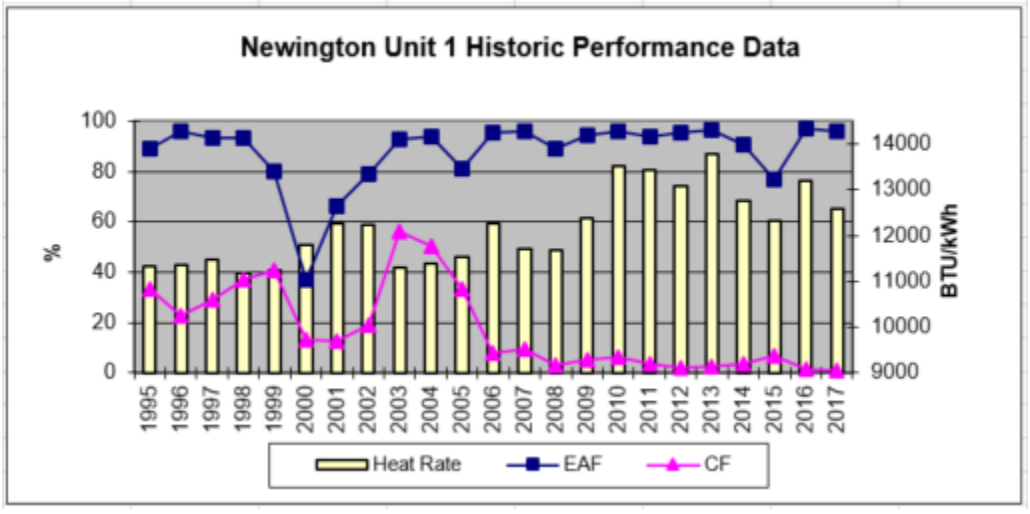



# Steam Unit Graphs – Planned Outages Included



# Steam Unit Graphs – Planned Outages Included